

P97

Diploma in Insurance

Unit P97 – Reinsurance

April 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. Explain briefly:
 - (a) how the purchase of reinsurance can affect the cash flow of the reinsured; (5)
 - (b) **four** factors that the reinsured needs to be taken into consideration when investing technical funds. (4)

2. Explain briefly industry loss warranties, providing an example. (6)

3.
 - (a) Describe briefly how premium calculations and claims recoveries are made under facultative proportional and facultative non-proportional methods of reinsurance. (8)
 - (b) Identify **four** reasons why an insurer would decide to reinsure on a facultative basis. (4)

4. In connection with proportional treaty reinsurance:
 - (a) describe briefly **two** sets of circumstances that give rise to portfolio transfer; (4)
 - (b) identify **three** methods used to calculate an equitable premium when a portfolio is transferred from one reinsurer to another. (6)

5. Explain briefly, in connection with non-proportional treaty reinsurance, why minimum and deposit premiums are applied, and how they are adjusted at the end of the contract period. (8)

6. XYZ Insurance Company (XYZ) has its headquarters in London and three business units: one in Manchester, one in Birmingham and one in Liverpool. XYZ buys its property insurance through its captive. Each business unit has a deductible of £20,000. The captive provides cover up to £200,000 and anything above that is ceded to the reinsurance market.
- (a) Explain what a captive is and state **three** reasons why XYZ might have decided to make use of a captive. (8)
- (b) Identify who pays and state how much in the case of the following property claims:
- (i) A claim of £3,000 in Manchester. (1)
- (ii) A claim of £50,000 in Birmingham. (1)
- (iii) A claim of £1,200,000 in Liverpool. (1)
- (c) XYZ arranges employers' liability insurance from the ground up. Through a fronting arrangement, the captive reinsures all losses of less than £200,000. All the rest remains with the insurance market.
- Identify who ultimately bears the loss and state how much, in respect of the following employers' liability claims:
- (i) A claim of £30,000 in Manchester. (1)
- (ii) A claim of £1,500,000 in Birmingham. (1)
- (iii) A claim of £3,000,000 in Liverpool, after which, and for reasons unrelated to the claim, the company together with its captive goes into liquidation. (2)
7. Explain briefly the purpose of the currency fluctuation clause and identify the **three** steps involved in calculating the amount of the loss to be paid in the contract currency. (10)

QUESTIONS CONTINUE OVER THE PAGE

8. (a) Explain briefly risk attaching during (RAD), losses occurring during (LOD) and claims made bases of cover, providing an example in **each** case. (12)
- (b) An original policy inceptioned in 2014 had a loss in 2015 which was notified to reinsurers in 2016.
- Identify which reinsurance policy year will pay on the:
- (i) losses occurring basis; (1)
- (ii) risk attaching basis; (1)
- (iii) claims made basis. (1)
9. Casualty Insurance Company EFG plc (EFG) specialise in public, product and employers' liability classes of business. This year, EFG decided to purchase a combined reinsurance programme for all its classes of business.
- State **three** advantages and **three** disadvantages for EFG of combining different liability classes into one reinsurance treaty. (6)
10. (a) Describe how the reinsurance underwriting cycle works. (8)
- (b) Explain briefly **two** factors that influence the reinsurance underwriting cycle. (4)
11. Describe **two** ways in which accumulations can occur in property reinsurance. (8)
12. Identify **nine** typical exclusions found in a fidelity guarantee book of business. (9)

13. (a) Identify **six** items of information required by the reinsurer when writing an aviation personal accident account. (6)
- (b) Explain briefly **three** types of reinsurance and their suitability for aviation personal accident business. (6)
14. Identify **eight** considerations that the property reinsurer needs to take into account when calculating the excess of loss premium for a catastrophe programme. (8)

QUESTIONS CONTINUE OVER THE PAGE

PART II

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

15. ABC Insurance Company plc (ABC) is considering two reinsurance options:

Option 1

A quota share treaty with a capacity of £250,000, 25% of which is retained by the insurer and 75% ceded to reinsurance.

Option 2

A 9 line surplus treaty with £25,000 net retention and automatic underwriting capacity of £250,000.

(a) Calculate, **showing all your workings**, for both options, the apportionment of liability, premiums and losses for the following three policies:

Policy	Sum insured (£)	Premium (£)	Loss (£)
A	25,000	400	8,000
B	100,000	1,000	10,000
C	150,000	1,500	60,000

Use the accompanying table as a template which you should copy into your answer booklet for **each** option and record your calculations there.

Table template:

	ABC retention	Reinsurance cession
Policy A		
Sum insured		
Premium		
Losses		
Policy B		
Sum insured		
Premium		
Losses		
Policy C		
Sum insured		
Premium		
Losses		

(18)

(b) Outline **three** advantages and **three** disadvantages to the reinsured of **each** option above.

(12)

16. You are a broker for company XYZ. Their marine cargo account reinsurances are due for renewal and the Reinsurance Manager of XYZ has asked you to analyse the account and advise if it should place its treaty on an 'any one vessel' or 'any one event' basis.

The current programme information is as follows:

XYZ have excess of loss cover £35million excess of £10million with five free reinstatements.

Incurred losses (all the losses arise out of the same event):

Losses	Event A (£)	Event B (£)
Vessel 1	20,000,000	38,000,000
Vessel 2	8,000,000	22,000,000
Vessel 3	15,000,000	4,000,000
Vessel 4	22,000,000	1,000,000
Total	65,000,000	65,000,000

- (a) Calculate, **showing all your workings**, XYZ's net liability and its reinsurer's liability if the treaty was placed on an 'any one vessel' and on an 'any one event' basis. (18)
- (b) Explain briefly the suitability of **each** option to XYZ. (6)
- (c) Identify additional underwriting information that reinsurers would require. (6)
17. One of the reinsurers on LMN's panel has had its rating downgraded by the market rating agencies and LMN are thinking of replacing it at the next renewal.
- (a) Identify the information the rating agencies might require to determine a reinsurer's financial strength. (10)
- (b) Explain the factors taken into consideration by the rating agencies when assessing the company's financial strength. (20)

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