

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE

B. COM (HON) DEGREE RISK MANAGEMENT AND INSURANCE

REINSURANCE PRINCIPLES AND APPLICATION - CIN 2102

APRIL/MAY SECOND SEMESTER EXAMINATION 2006

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer all questions in Section A and B.
2. Answer any two questions from section C.
3. Refer to legal material where appropriate.

SECTION A (30 MARKS)

1. Give reasons why a reinsured's deductible for a property catastrophe excess of loss treaty programme would be different from that of its property risk excess of loss treaty programme. **[4 marks]**
2. Outline the reasons why insurers purchase reinsurance. **[5 marks]**
3. State five circumstances in which facultative reinsurance might be used. **[5 marks]**
4. What is the purpose of the "Acts in Force" clause? **[2 marks]**
5. What is meant by a table of limits and what is its significance for a reinsurer? **[2 marks]**
6. List four factors that reinsurers consider in setting commission for pro rata treaties. **[4 marks]**
7. State 2 advantages and 2 disadvantages of treaty reinsurance. **[4 marks]**
8. Briefly explain the difference between hard market conditions and soft market conditions. **[4 marks]**

SECTION B (20 MARKS) - ANSWER ALL

9. **REINSURANCE TREATY SLIP (SUMMARY)**

Reinsured : Webster Insurance Company

Class : Fire and Engineering surplus

Geographical scope : Risks situated in Zimbabwe and incidental extensions thereto.

Treaty detail : Retention of \$ 1 000 000 (minimum EML 50%) Scaled down according to table of retentions.

1st Surplus lines: 10
2nd Surplus lines: 9

Rate : Original gross rate

Sliding scale
Commission : 24.5%-37.5% LR 60%-40%

Cash loss : \$ 250 000 (100% to the treaty)

General conditions : Annexure 1
Table of retentions (schedule of percentage of limits)

Risk category	Area 1	A2	A3
A Museums	100%	80%	70%
B Cinemas	75%	65%	50%
C Cafes	50%	40%	25%

The company will utilize its maximum available retention.

- (a) What is Webster Insurance Company's total underwriting capacity on sum insured basis? **[2 marks]**
- (b) The company accepts a 40% share of a risk (cinema situated in area 3) insured on a co-insurance basis. The total sum insured of the risk is Z\$ 120 000 000. Webster Insurance company establishes that the EML for the risk is 40%. Allocate the risk accepted to the retention and the respective reinsurance facilities. **[6 marks]**

(c) Two losses occur on the cinema risk, one for 10 million and another for 80 million. Allocate the losses to the company's retention and other reinsurance facilities utilized. **[10 marks]**

(d) Suppose Webster's retention was protected by a two layer per risk excess of loss treaty as follows:

200 000 xs 300 000
500 000 xs 500 000

How much will be paid by 1st and 2nd layer reinsurers in each of the loss situations above? **[2 marks]**

SECTION C (Answer any two questions from this section) (50 MARKS)

10. (a) Discuss two accounting basis used in respect of pro rata proportional treaties.

[10 marks]

(b) A company has an option of either arranging a risk excess of loss treaty or a quota share treaty. The information is as follows;

Programme X: 60% quota share with 25% ceding commission subject to a gross acceptance of \$ 2000 000.

Programme Y: Risk excess of loss \$ 1 400 000 xs \$ 600 000 premium adjustable at 25% of the OGP (original gross premium)

Assuming that:

- (i) the company's expected OGP is \$ 40 000 000 and that commission and expenses ratios are 10% and 15% respectively.
- (ii) expected losses in the first year are \$ 16 000 000, but total recovery from the proposed excess of loss treaty will be \$ 2 400 000.

Which treaty option would be profitable?

[10 marks]

(c) What is meant by "an hours clause" and what is its significance to excess of loss catastrophe reinsurers? **[5 marks]**

11. (a) Describe four premium reserving methods used by (re)insurers. **[12 marks]**

(b) Treaty period 1/1/2001 to 31/12/2001
Cover 100 000 xs 50 000
Gross loss 80 000
Date of loss 1/7/2001 settled 14/08/2001
Premium rate 5%
Actual GNPI \$ 1,1 million
Deposit premium \$ 45 000

Calculate the reinstatement premium;

(a) Based on pro rata time and amount. Show provisional reinstatement and the adjustment at the end of the year.

(b) Based on pro rata amount at 50% AP (additional premium). Show provisional reinstatement and the adjustment at the end of the year.

[13 marks]

12. What are the principal objectives of reciprocity in reinsurance? Discuss the motivators and drawbacks of reciprocity. **[25 marks]**

13. Discuss the factors that an insurer takes into account when setting its retention. **[25 marks]**

***** **THE END** *****