

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

B. COMM INSURANCE AND RISK MANAGEMENT

REINSURANCE PRINCIPLES AND APPLICATION – CIN 2102

DECEMBER 2002 1ST SEMESTER EXAMINATION

DURATION : 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer any four questions
 2. All questions carry equal marks
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1. Discuss the reasons why the reinsurance market is important to the primary market of insurance companies. [25 marks]
3. A company has an option of either arranging a risk excess of loss treaty or a quota share treaty. The information available is as follows:

Programme A: 60% Quota share treaty with 20% ceding commission.
Subject to a gross acceptance of \$1 000 000

Programme B: Risk excess of loss - \$700 000 excess of \$300 000
Premium adjustable at 25% of OGP (Original Gross Premium)

Assuming that (a) the company's expected OGP is \$20 000 000 and that commission and other expenses ratios relative to the OGP are 15% and 20% respectively

(b) expected losses in the first year are \$8 000 000, but total recovery from the proposed excess of loss treaty will be \$1 200 000.

(i) Which treaty would be profitable? [10 marks]

(ii) Consider the various aspects to be taken into account when comparing the benefits, or otherwise, of purchasing a quota share treaty as against a risk excess of loss treaty. [10 marks]

(iii) A company has a Risk Excess of Loss Treaty covering its motor business arranged as follows:

| | |
|-----------------------|-----------------------------------|
| First layer | \$3 000 000 excess of \$400 000 |
| 2 nd layer | \$6 000 000 excess of \$3 400 000 |

The following were losses recorded on the motor business:

\$ 50 000
\$ 650 000
\$ 400 000
\$ 3 400 000
\$12 000 000

Show how these losses will affect the reinsured and its reinsurer.
[5 marks]

3. (a) What is meant by a “table of limits” with regard to proportional reinsurance. What is its purpose? [10 marks]
- (b) Discuss the various ways by which an accumulation of losses on a property account can occur. [10 marks]
- (c) Outline five uses of facultative reinsurance. [5marks]
4. (a) What is the significance of each of the clauses below:
(i) Act(s) in force
(ii) Stability (index)
(iii) Reinstatement
(iv) Offset
(v) Errors and omissions [15 marks]
- (b) Discuss the main provision of the following clauses:
(i) Cut-through
(ii) Follow the fortunes [10 marks]
5. (a) A treaty has a reinstatement provision worded as follows:
“Pro-rata additional premium as to time and amount”. Given
Cover Limit of \$500 000
Loss to cover of \$50 000
Annual Premium of \$10 000
- Calculate the reinstatement premium where:
(i) Loss occurs on first day of cover
(ii) Loss occurs on the last day of cover [5 marks]
- (b) Distinguish between premium reserve deposits and premium portfolio transfers. [5 marks]

- (c) An insurance company has a retention of \$2 000 000 on its property account. It has a 5 line surplus treaty. A proposer requires cover on his factory worth \$14 000 000.
- (i) How much of the risk can the direct office accept?
 - (ii) Suppose the insurance company accepts the risk and makes maximum use of its surplus facility how much will the company pay and the reinsurers pay if there is a claim of \$3 500 000?
 - (iii) What options are available to the insurance company if it proceeds to issue the proposer with a policy of \$14 000 000 given its current capacity?
 - (iv) Assuming the insurance company has a working excess of loss cover of \$1 500 000 excess of \$500 000 on its surplus retention, what is the ultimate loss payable by insurer on a \$3 500 000 claim.

[25 marks]

6. Suggest the information a reinsurer would need to have from a cedant when negotiating a reinsurance contract. Give reasons in each case.

[25 marks]

7. (a) Describe the following premium portfolio transfer methods:

- (i) Pro rata
- (ii) 24th system
- (iii) Eighths system

[9 marks]

- (b) Which reinsurance offers a higher commission to the cedant between quota share reinsurance and surplus treaty reinsurance? Give reasons for your answer. [5 marks]

- (c) A policyholder whose claim has been accepted but not paid by the insurance company discovers that the company has gone into liquidation. The policyholder then discovers that the company has a 90% reinsurance on the policy he holds and takes legal action to recover the claim from the reinsurers. What is the legal position. [8 marks]

- (d) What is the purpose of sliding scale commission on a proportional treaty? [3 marks]

END OF EXAMINATION