NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE

DEPARTMENT OF INSURANCE AND ACTUARIAL SCIENCE

B.COMM HONOURS DEGREE IN RISK MANAGEMENT AND INSURANCE

REINSURANCE PRINCIPLES AND APPLICATIONS CIN 2102

SUPPLEMENTARY EXAMINATION - 2011

DURATION 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer all questions in SECTION A
2. Choose any 3 **three** questions from section B.
3. Begin each question on a fresh sheet of paper
4. Write neatly and legibly

SECTION A (COMPULSORY) [40 MARKS]

QUESTION 1

(a) State four (4) different types of organisations that may purchase reinsurance. **[4 marks]**

(b) Give two advantages and two disadvantages to a ceding company reinsuring on a proportional treaty basis. **[4 marks]**

(c) For a proportional treaty, explain the difference between:

(i) Ceding commission **[2 marks]**

(ii) Profit commission **[2 marks]**

(iii) Sliding scale commission **[2 marks]**

(d) What is facultative reinsurance? Give four reasons why an insurer would use facultative reinsurance. **[6 marks]**

(e) Distinguish between co-insurance and reinsurance **[4 marks]**

(f) An insurer has arranged a five line first surplus treaty and a two line second surplus treaty. A risk with a sum insured of $10 million is offered, of which the insurer wishes to retain only $1,5 million for its own account. Reinsurer X takes 10% of the first surplus and 25% of the second surplus treaty. What sum insured is reinsurer X liable for? **[6 marks]**

(g) A company that accepts fire business up to a maximum sum of $50,000 considers the following two possible reinsurance programmes, each designed to limit its maximum liability per risk to $10,000.

Programme 1

80% Quota Share with 40% ceding commission subject to a maximum gross acceptance of $50,000.

Programme 2

Risk Excess of Loss Cover of $40,000 XS $10,000, premium adjustable at 20% of Original Gross Premium (OGP).

Assume that:

The company's OGP is $1,000,000 and that its commission and expense (net of commission) ratios relative to the OGP are 15% and 20% respectively.

During the first year, total claims amount to $500,000, but only ten claims exceed the $10,000 priority under the proposed Risk Excess of Loss Cover, and that the total recoveries that would be made there under amount to $150,000.

Which treaty would profitable? **[10 marks]**

<u>SECTION B (Choose any three 3 questions from this section)</u>

<u>Question 2</u>

Discuss the following functions of reinsurance

(a) Capacity **[4 marks]**

(b) Catastrophe protection **[4 marks]**

(c) Stabilise underwriting results **[4 marks]**

(d) Withdrawal from a certain line of business **[4 marks]**

(e) Relief capital **[4 marks]**

<u>Question 3</u>

(a) Distinguish between quota share and surplus treaty methods proportional reinsurance. **[14 marks]**

(b) **"**If insurance companies were to issue policies only for sums insured which, in the event of a total loss, they could meet out of their own funds they would have no need of reinsurance." Discuss this statement. **[6 marks]**

<u>Question 4</u>

Assess the differences and similarities between contracts of insurance and those of reinsurance. **[20 marks]**

<u>Question 5</u>

Identify the players normally found in a reinsurance market highlighting the role played by each. Are there any players you think are not really necessary?

[20 marks]

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