

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

B. COMM (HONOURS) DEGREE INSURANCE AND RISK MANAGEMENT

FINANCIAL MANAGEMENT AND ANALYSIS FOR INSURANCE : CIN CIN 4206

JUNE 2004 SECOND SEMESTER EXAMINATION

DURATION : 3HOURS

**INSTRUCTIONS TO CANDIDATES**

1. Answer Question 1 and 3 others
2. Scientific and Financial calculators may be used

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**Question 1**

Stocks “A” and “B” have the following historical returns:

<u>Year</u>	<u>Stock “A” Returns, <math>k_A</math></u>	<u>Stock “B” Returns, <math>k_B</math></u>
1994	-10%	-3%
1995	18,50%	21,29%
1996	38,67%	44,25%
1997	14,53%	3,67%
1998	33,00%	28,30%

- (a) Calculate the average rate of return for each stock during the period 1994 through 1998. **[5 marks]**
- (b) Assume that someone held a portfolio consisting of 50% of stock A and 50% of stock B. What on the portfolio in each year from 1994 through 1998? What would have been the average return on the portfolio during this period. **[5 marks]**
- (c) Calculate the standard deviation of returns for each stock and for the portfolio. **[5 marks]**
- (d) Looking at the annual returns data of the two stocks, would you guess that the correlation coefficient between the returns on the two stocks is closer to 0,9 or – 0,9? **[5 marks]**
- (e) If you added more stocks at random to the portfolio, which of the following is the most accurate statement of what would happen to the standard deviation of the portfolio and explain why?:

- (i) It would remain constant
- (ii) It would decline to somewhere in the vicinity of 20%
- (iii) It would decline to zero if enough stocks were added.

[5 marks]

[Total 25 marks]

### **Question 2**

What are the main differences between Investment Trusts and Unit Trusts? Discuss their advantages and disadvantages as an alternative to an individual portfolio.

[25 marks]

### **Question 3**

The number of individuals who have stake in the stock market is increasing , but the percentage of the Corporate shares owned by individuals is decreasing. How can these statement both be true?

[25 marks]

### **Question 4**

A firm's pension fund assets are currently invested only in domestic stocks and bonds. The outside manager recommends that "hard assets" such as precious metals, real estate and foreign financial assets be added to the fund.

What effect would the addition of these assets have on the fund's risk/return trade off?

[25 marks]

### **Question 5**

Describe and explain the four types of Bond portfolio risks. How can these risk types be minimized?

[25 marks]

### **Question 6**

Compare and contrast the investment objectives of a life office and that of a non-life business.

[25 marks]

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**END OF EXAMINATION PAPER**