NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY FACULTY OF COMMERCE DEPARTMENT OF FINANCE BACHELOR OF COMMERCE HONOURS DEGREE IN Accounting; Finance; Banking Insurance & Risk Management Actuarial Science Marketing and Management PART II Ist SEMESTER SUPPLEMENTARY EXAMINATION - JULY 2007 <u>CORPORATE FINANCE I [CFI 2101]</u> TIME ALLOWED: 3HOURS 10 MINUTES

INSTRUCTIONS

- THE PAPER IS 3 HOURS 10 MINUTES
- ANSWER QUESTION ONE AND ANY THREE THEREAFTER.
- ♦ QUESTION 1 CARRIES 40 MARKS, OTHER QUESTIONS CARRY 20 MARKS EACH

QUESTION 1

[40 marks]

(a) You have identified the following cashflows in respect of project A and B. The company's opportunity cost of capital is 10%.

Project A Year Net Cashflow	0 -1 000	1 500	2 400	3 300	4 100
Project B Net Cashflow	-1 000	100	300	400	600

Required

- (i) Using the NPV decision rule which project would you recommend? [4]
- (ii) Determine the regular payback periods for each project. [2]
- (iii) Compute the discounted payback period for both projects. [2]
- (iv) What is the Internal Rate of Return [IRR] for project A? [4]
- (v) Determine the Modified Internal Rate of Return [MIRR] for project A.
 [6]
- (vi) Briefly discuss the main drawback of the discounted payback period technique used in (iii) above. [2]
- (b) Diagrammatically represent the role of a financial manager in an organization. [6]
- (c) Discuss three [3] areas of conflict between Shareholders and Company managers in the financial field. [6]

(d) Identify and briefly explain any four real options in Capital Budgeting.

[20 Marks]

According to Milton Friedman; "there is one and only one social responsibility of business – to use its resources and to engage in activities designed to increase its profits as long as it stays within the rules of the game". Assert this statement in relation to corporate governance principles. [20]

QUESTION 3 [20 Marks]

The following summary statistics are available with regard to shares A, B and C;

	<u>A</u>	B	<u> </u>
Expected Returns;	$R_{a} = 10\%$	$R_{b} = 13\%$	$R_{c} = 20\%$
Standard Deviation (σ)	$\sigma_a = 8\%$	$\sigma_b = 15\%$	$\sigma_c = 25\%$
Correlation Coefficient (r)	$r_{ab} = 0.6$	$r_{ac} = 0.8$	$r_{bc} = -0.4$

<u>Required</u>

QUESTION 2

- (a) Determine which Shares A, B, C would be the most attractive to a risk-averse investor who uses a mean-variance criterion to minimize the risk per unit of return. [6]
- (b) An investor intends to hold a portfolio of investments which comprise of two of the three shares, thus the following options are available;

Option 1: 50% of each of the shares A and B

Option 2: 50% of each of the shares A and C

Option 3: 50% of each of the shares B and C

Determine which of the 3 alternative options would be the most attractive to a risk averse investor. A ranking of the options is required. [14]

[8]

[20 Marks]

QUESTION 4

(a)	Distinguish between business and financial risk.								
(b)	With	With the aid of a diagram, briefly discuss the mean-variance rule. [6]							
(c)	(c) Consider the following; Return to Shareholders Standard Deviation		$\begin{pmatrix} r \end{pmatrix} \\ (\sigma)$	<u>NUST Ltd</u> 22.0% 9.2%	<u>Poly Ltd</u> 22.0% 15.4%				
	(i)	(i) Determine the co-efficient of variation for the two companies.[2]							
	(ii)	Comment on your a	r in (i) above.	[2]					
QUES	<u>STION</u>	5	[20 M	[arks]					

Critically discuss the implications of the Efficient Market Hypothesis. [20]