NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF COMMERCE
DEPARTMENT OF FINANCE
BACHELOR OF COMMERCE HONOURS DEGREE IN FINANCE
PART IV – 2ND SEMESTER FINAL EXAMINATION – AUGUST 2009
INSTITUTIONAL INVESTMENT MANAGEMENT (CFI 4203)
TIME ALLOWED: 3 HOURS

INSTRUCTIONS

1. Answer any **FOUR** questions
2. Start each question on a fresh page
3. Calculations should be shown clearly
4. Each question carries 25 marks.

Question One (25 Marks)

(a) Discuss the five key steps in Portfolio management (15)

(b) What would you include in your report if you were a portfolio manager of a local Pension fund, which has requested for a quarterly report. (10)

Question Two (25 Marks)

(a) Suppose you are the manager of Lannercost Pension Fund, the largest portfolio in South Africa in terms of market value and number of securities bought. It is an all equity, stratified index fund portfolio. Your client i.e Lannercost Pension Fund has indicated that you have to switch to an all bond portfolio.

(i) What risks does the portfolio face in the process of switching? (2)

(ii) Discuss two strategies you will employ in managing risks in (i). (4)

(iii) If you also manage a small individual equity portfolio made up of three counters and you are supposed to liquidate the entire portfolio in two weeks time, how would you manage the price risk of the individual counters? (2)

(iv) What is multi-managing? Why would a pension fund undertake multi managing strategy? (4)

(v) Explain how real estate can be converted into tradable financial assets. (9)

(vi) Under what circumstances would an investor employ a straddle? (4)

Question Three (25 Marks)

(a) You are given the following information about two bonds A and B.

	A	B
Yield	10%	10%
Volatility	3%	5%

You are also reliably informed that yields are likely to drop from the current levels of 10% to 8% in 6 months time. Your Portfolio does not hold any of the above bonds but available funds can only buy either A or B but not both. For strategic purposes A is preferred.

(i) Explain how you would invest your funds to take advantage of the bond characteristics and market movements. (3)

(ii) What 3 constraints does a portfolio manager face in the process of managing clients funds? (6)

(b) A portfolio manager is worried that his $70 million portfolio might lose value. The S&P 500 Index is at 2850 and S&P 500 Futures are available at 2920. Each index point is worth $25 and available futures are for six months.

(i) If the market declines by 9% in six months time, clearly show the net gain or loss to the portfolio if the portfolio manager employs a futures hedge. (6)

(ii) If the portfolio manager expects an inflow of $6million in the near future, what action is he likely to take if he is to invest the inflow over 3 equity counters? (2)

(c) Explain the top –down approach to equity selection. (8)

Question Four (25 Marks)

(a) Define portfolio immunization. How does classical immunization differ from contingent immunization? (4)

(b) If a portfolio has a liability of $11billion in exactly three (3) years time and the following bonds are available in the market.

	Maturity (years)	Coupon (%)	Par value $
A	2	9	1000
B	4	8	1000
C	5	8.5	1000

The required rate of return is 10%. Yields are expected to either decrease or increase by 100 basis points (1%) in year 2.

(i) Which two bonds will you invest in, in order to immunize the portfolio? Show calculations. 10)

(ii) State 3 active management strategies available to a bond portfolio manager. (3)

(c) What are the implications of the Efficient Market Hypothesis to active portfolio managers. (6)

(d)What are the two major causes of bond yield changes? (2)

Question Five (25 Marks)

(a) Mr. Aristotelous has a portfolio being managed by Mr. Chipato. At the beginning of the quarter the portfolio is valued at $100million. Mid way through the quarter the value of the portfolio had appreciated to $150 million and impressed by the good returns, Mr. Aristotelous made an additional deposit of $100 million. By the end of the quarter, the portfolio value was $166. 66 million.

(i) Compute the Dollar Weighted and Time Weighted Returns of the portfolio for the whole quarter. (4)

(ii) Which method in (i) should be used when measuring returns generated by the portfolio manager? Explain your answer. (4)

(b) Differentiate Full Indexation and Stratified Indexation. (4)

(c) Differentiate an Anomaly switch and a Policy switch. (4)

(d) You are a Portfolio Management Consultant. Fidelity Life Assurance, a life assurance company and Nicoz Diamond Pvt Ltd, a casuality insurance company has separately given you a mandate to advise them on how to structure their portfolios.

Explain how you would spread the funds of each portfolio over different assets. Assume an infinite set of available financial assets. (9)

Question Six (25 Marks)

(a) State 3 security selection strategies available to an equity portfolio manager. (3)

(b) What market timing strategies would you expect from a Zimbabwean portfolio manager who is exposed to both money and equities markets? (2)

(c) Explain the Core –Satellite management strategy. (3)

(d) During the first quarter of 2009, the All-Share Index on the Johannesburg Stock Exchange had a return of 8.79% and 91 day Treasury Bills issued by the South African Reserve Bank offered a return of 3.92%. A mutual fund portfolio managed by Investec Asset Managers Pvt Ltd on Behalf of Black

Economic Empowerment Trust had a beta of 0.91. The beta agreed on between Black Economic Empowerment Trust and Investec Asset Managers was 1. 3. The actual return on the mutual fund was 5.32%.

Required

(i) How skillful was the asset manager in Market Timing and Stock Selection. Show calculations clearly. (4)

(ii) Why is it important to measure the timing and selection skills of a portfolio manager? (4)

(e) Given below is information pertaining to a portfolio being managed by NUST Alumni Asset Managers. The information was gathered from observations made over the past 4 years.

Average portfolio return	10.16%
Standard Deviation of portfolio	8.59%
Beta	1.1
Average Risk free rate	9%
Return on Industrial Index (on Z.S.E)	14.6%
Market Risk	6%
Avearge Benchmark Return	9.8%

Required

(a) Calculate and interpret:

(i) Reward –to- Volatility Ratio (2)

(ii) Sharpe Ratio (2)

(iii) If portfolio under management was the only wealth of the investor, which of the above measures will best reflect the risk adjusted performance of the portfolio and Why? (2)

(f) How would a portfolio manager employ Futures and Options at portfolio revision stage? (3)