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 – MAY 2006
INSTITUTIONAL INVESTMENT MANAGEMENT [CFI 4203]
TIME ALLOWED: 3 HOURS 10 MINUTES

INSTRUCTIONS

1. **THIS PAPER IS 3 HOURS 10 MINUTES, OF WHICH 10 MINUTES IS READING TIME.**
2. **THE PAPER CONTAINS SIX [6] QUESTIONS.**
3. **ATTEMPT ANY FIVE QUESTIONS.**
4. **EACH QUESTION CARRIES 20 MARKS**
5. **SHOW ALL YOUR WORKINGS**

QUESTION ONE

Active managers use three generic themes to time the market and add value to their portfolios in comparison to the benchmark. Identify these generic themes and discuss the strategies that are used to implement them. **[20 Marks]**

QUESTION TWO

As the Chief Investment Officer for a Money Management Firm specializing in taxable individual investors, you are trying to establish a strategic asset allocation for two different clients. You have established that Ms Anna Moyo has a risk tolerance factor of 8 while Mr Simba Shoko`s risk tolerance factor is 27. The characteristics for four model portfolios are listed below:

	Asset mix			
Portfolio	**Stock**	**Bond**	**Expected Return**	**Variance [σ^2]**
1	5%	95%	8%	5%
2	25	75	9	10
3	70	30	10	16
4	90	10	11	25

(a) Compute the expected utility of each prospective portfolio for each of the two clients. **[10 marks]**

(b) On the basis of your computations in (a), which portfolio represents the optimal strategic allocation for Ms Moyo?. Which portfolio is optimal for Mr Shoko?. Explain why there is a difference in these two outcomes. **[5 marks]**

(c) For Ms Moyo what level of risk tolerance would make her indifferent between having Portfolio 1 and Portfolio 2 as her strategic allocation. Demonstrate. **[5 marks]**

QUESTION THREE

(a) Discuss how an individual's investment strategy may change as he or she goes through the various phases in the investment life cycle. **[8 marks]**

(b) "Young people with little wealth should not invest money in risky assets such as the stock market, because they can't afford to lose the little that they have. Do you agree? **[4 marks]**

(c) What information is necessary before a financial planner can assist a person in constructing an investment policy statement? **[8 marls]**

QUESTION FOUR **[20 Marks]**

(a) The performance of four portfolios in 2005 was as follows:

Portfolio	Return [%]	Standard Deviation of Returns [%]	Beta
A	25	10	1.5
B	15	8	0.8
C	20	6	1.1
D	19	7	0.9

The riskless interest rate during the year was 10% and the return on the market was 19%. Rank the portfolios using Treynor`s measure. Comment on your results. **[8 marks]**

(b) You are given the following data on the performance of a fund and on the market.

Return on the portfolio	22%
Total risk of the portfolio	26%
Beta of the portfolio	1.2
Return on the market	17%
Total risk of the market	20%
Riskless interest rate	9%

Over the preceding five years, the fund had an average beta estimate of 0.9.

Using Fama`s decomposition, identify the sources of the fund manager`s performance. **[8 marks]**

(c) Distinguish between the time-weighted rate of return and the money-weighted rate of return on portfolio. **[4 marks]**

QUESTION FIVE **[25 Marks]**

(a) Identify the four asset allocation strategies and explain how they differ from one another. **[8 marks]**

(b) Explain why derivative contracts may be effective in enabling a more efficient change in asset allocation. **[4 marks]**

(c) What are four reasons that drive institutional investors invest overseas and comment on whether currency hedging helps in each case. **[8 marks]**

QUESTION SIX **[15 Marks]**

(a) The yield curve on government Treasury Bond obligations is shown below:

Maturity	**YTM**	**Maturity**	**YTM**
1 year	10%	5 year	11%
2 year	10	6 year	10
3 year	10	7 year	10
4 year	12	8 year	10

You are the financial executive for a casualty insurance firm and have estimated that the firm will have to pay $7 billion in damage claims in exactly one year, $10 billion in exactly two years, and $15 billion in exactly three years. How would you immunize these liabilities today? **[5 marks]**

(b) Distinguish between an anomaly switch and a policy switch in bond portfolio management. **[5 marks]**

(c) A particular bond stands above the yield curve. Give a five-step guide to what you would do about it if you were a bond fund manager for a portfolio that did not currently hold that bond. **[5 marks]**

(d) You are given the following information on a bond portfolio:

Bond	**Proportion of portfolio [%]**	**Return [%]**	**Specific Risk [%]**	**Duration [yrs]**
A	20	9	12	5
B	25	10	10	7
C	35	11	11	9
D	20	12	13	11

If the riskless rate of interest is 7 percent and the return, total risk and duration of the market portfolio of bonds are respectively 10%, 12% and 10 years, assess the performance of the manager of the bond portfolio. **[5 marks]**