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 2005
INSTITUTIONAL INVESTMENT MANAGEMENT [CFI 4203]
TIME ALLOWED: 3 HOURS

INSTRUCTIONS

1. **ATTEMPT ALL QUESTIONS.**

QUESTION ONE

In constructing an Investment Policy Statement for an institutional investor, what are some of the objectives and constraints that you would consider?   **[20 Marks]**

QUESTION TWO   **[5 Marks]**

a. Compute a Value-Weighted Indicator Series for the following stocks.

STOCK	SHARE PRICE		NUMBER OF SHARES	
	T	T+1	T	T+1
A	$10	$12	1 000 000	1 000 000
B	$15	$10	6 000 000	12 000 000
C	$20	$20	5 000 000	5 500 000

QUESTION THREE   **[15 Marks]**

The following data relates to the performance of your portfolio relative to the market over the last 5 years.

a.   **Calculate:**

     i.   The Sharpe Measure.
     ii.   Treynor Measure
     iii.   Jensen Measure
     iv. M^2 Measure
     v. T^2 Measure

b.   How did your portfolio perform relative to the market?

	Portfolio P	**Market M**
Average Return	35%	28%
Beta	1.2	1.0
Standard Deviation	42%	30%
T-Bill Rate = 6%		

Illustrate the M^2 and T^2 measures using graphs [not drawn to scale]

QUESTION FOUR   [20 Marks]

a.   If mutual fund cash positions were to increase on aggregate, would technicians consider this cash position to be bullish or bearish?.   Give two reasons why they would feel this way.

b.   What is the "bearish sentiment index"?. If the index were to increase to 61%, would this be a bearish or bullish signal? What would the contrarians say?

c.   Why is an increase in **debt** balances in Brokerage Accounts considered bullish?

d.   Study the following data in respect of shares traded on the NYSE

Day	Advances	Declines
1	802	748
2	917	640
3	703	772
4	512	1 122
5	633	1 004

What trading signal can you get from this data?

QUESTION FIVE   [25 Marks]

a.   Distinguish between an active portfolio management strategy and a passive portfolio management strategy.   **[10 marks]**

b.   The following results pertain to a portfolio that you have been managing relative to the client's benchmark:

	INVESTMENT WEIGHTS		RETURNS	
ASSET CLASS	ACTUAL	BENCHMARK	ACTUAL	BENCHMARK
STOCK	0.50	0.60	9.70%	8.60%
BONDS	0.38	0.30	9.10%	9.20%
MONEY MARKET	0.12	0.10	5.60%	5.40%

Carry out an attribution analysis showing how you added value to the client's benchmark portfolio.   **[15 marks]**

QUESTION SIX   [15 Marks]

An insurance company must make a payment of $19 487 in 7 years. The market interest rate is 10%. The company's portfolio manager wishes to fund the obligation using three-year zero-coupon bonds and perpetuities paying annual coupons of 10% p.a. respectively.

How can the manager immunize the obligation?