

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF COMMERCE**  
**DEPARTMENT OF FINANCE**  
**BACHELOR OF COMMERCE HONOURS DEGREE IN FINANCE**  
**PART IV – 2<sup>ND</sup> SEMESTER SUPPLEMENTARY EXAMINATION – AUGUST 2007**  
**INSTITUTIONAL INVESTMENT MANAGEMENT [CFI 4203]**  
**TIME ALLOWED: 3 HOURS 20 MINUTES**

**INSTRUCTIONS**

**Instructions to Candidate**

1. This paper is 3 hours 20 minutes, of which 20 minutes is reading time.
2. The paper contains seven [7] questions.
3. Attempt question one, [the case study, which is compulsory], plus any other four questions.
4. All questions carry equal marks [20 marks each]
5. Show all your workings.
6. Write legibly.

**QUESTION ONE – [COMPULSORY QUESTION – CARRIES 20 MARKS]**

**Study the following case and answer the questions that follow:**

John Taguta, an associate in your firm, has asked you to help him establish a financial plan for his family's future. John is 27 years old and has been with your firm for two years. Spiwe, his 26-year-old wife, is employed as nurse for a local district hospital. They are childless now but may have children in a few years. John and Spiwe have accumulated \$10 million in savings and recently inherited \$50 million in cash. They believe they can save at least \$5 million yearly. They are currently in a 30% income tax bracket and both have excellent career opportunities. They are eager to develop a financial plan and understand that it will need to be periodically adjusted as their circumstances change. You tell John that you would be happy to meet with Spiwe and him to discuss their financial plans.

- (a) Identify and describe an appropriate investment objective and investment constraints for the Tagutas and prepare a comprehensive investment policy statement that is based on the objectives and constraints. **[12 marks]**
- (b) State and explain your asset allocation and recommendations for the Tagutas based on the policy statement you developed in part (a). **[8 marks]**

**QUESTION TWO [20 MARKS]**

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 these themes. **[20 marks]**

**QUESTION THREE [20 MARKS]**

- (a) Discuss how an individual's investment strategy may change as he or she moves through the various stages of the investment life cycle. **[12 marks]**
- (b) Why should investment portfolios, even those that are passively managed, be periodically revised? What factors weigh against making such revisions? **[8 marks]**

**QUESTION FOUR [20 MARKS]**

- (a) The portfolios identified below are being considered for investment. During the period under consideration, the risk-free rate is 0.08.

Portfolio	Return	Beta	$\sigma_i$
W	0.20	1.5	0.15
X	0.25	1.5	0.15
Y	0.15	0.6	0.08
Z	0.22	1.2	0.12
Market	0.18	1.0	0.09

- (i) Compute the Sharp measure for each portfolio and the market portfolio. **[5 marks]**
- (ii) Compute the Treynor measure for each portfolio and the market portfolio. **[5 marks]**
- (ii) Rank the portfolios using each measure, explaining the cause for any differences you find in the rankings. **[4 marks]**
- (b) Distinguish the time-weighted and dollar-weighted rates of return. Under what circumstances might the dollar-weighted return be preferred to the time-weighted? **[6 marks]**

**QUESTION FIVE [20 MARKS]**

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

<u>Maturity</u>	<u>YTM</u>	<u>Maturity</u>	<u>YTM</u>
1 year	10%	5 year	11%
2	10	6	10
3	10	7	10
4	12	8	10

You are the financial executive for a casualty insurance firm and have estimated that the firm will have to pay the following damages in the next five years:

<u>Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Estimated damage claims (\$billion)	3	5	7	10	15

- How would you immunize these liabilities today? **[5 marks]**
- (b) Discuss the active bond management strategies that are open to an investor. **[15 marks]**

**QUESTION SIX [20 MARKS]**

- (a) Identify four asset allocation strategies and explain how they differ from one another. **[16 marks]**
- (b) Explain why derivative contracts may be effective in enabling a more efficient change in asset allocation. **[4 marks]**

**QUESTION SEVEN [20 MARKS]**

- (a) The capital asset pricing model suggests that passive investment strategies are superior to active strategies. Discuss. **[10 marks]**
- (b) Discuss the challenges being faced by asset management firms in Zimbabwe. **[10 marks]**