



**National University of  
Science and Technology**  
Think in Other Terms



**FACULTY OF COMMERCE  
DEPARTMENT OF FINANCE  
BACHELOR OF COMMERCE (HONORS) FINANCE  
PART IV 2<sup>ND</sup> SEMESTER FINAL EXAMINATION – MAY 2012  
REAL ESTATE FINANCE AND INVESTMENT- [CFI 4205]  
TIME ALLOWED: THREE (3) HOURS**

**INSTRUCTIONS TO CANDIDATES**

1. Answer **ALL** Questions in **Section A** and any **THREE (3)** in **Section B**.
2. Start the answer to each full question on a fresh page of the answer sheet.
3. Write legibly.

**INFORMATION TO CANDIDATES**

1. **Section A** has a total of **40 marks** and **each question** in **Section B** is worth **20 marks**.
2. Questions in Section B may be written in any order, but must be legibly numbered.
3. Programmable calculators are not allowed into the examination hall.

## SECTION A (Compulsory) – 40 MARKS

### Answer Question 1 and 2

#### QUESTION ONE

A building located along Five street in Bulawayo has the following characteristics:

- The building has a capacity of 528,357 square feet of rentable space. While 95% of this space is rented out for the next year, the occupancy rate is expected to climb 0.5% a year for the following four years to reach 97% of capacity in year 5. This is expected to be the occupancy rate in steady state.
- The average rent per square foot was \$28.07 in the most recent year and is expected to grow 3% a year in perpetuity. Historically, there has been a credit loss, associated with tenants failing to make payments, of 2.5% of rental revenues.
- Real estate taxes were \$5.24 a square foot in the most recent year and are expected to grow 4% a year for the next 5 years and 3% a year thereafter.
- The land under the building is rented under a long-term lease and the ground rent in the most recent year was \$1.5 million. This rent is expected to remain unchanged for the next 5 years and grow 3% a year thereafter.
- Other expenses, including insurance, maintenance and utilities, amounted to \$6.50 a square foot in the most recent year and are expected grow 3% a year in perpetuity. Approximately 10% of these expenses will be reimbursed by tenants each year.

The potential buyer of the building is a corporation that faces a marginal tax rate of 38% and expects to finance the building with a mix of 60% debt and 40% equity. Then debt will take the form of a long-term balloon payment loan with an interest rate of 6.50%.

Risk free rate of return is 5.4% and the unlevered beta of equity real estate investment trusts with office properties is 0.62

Use the Discounted Cash Flow valuation method to estimate the price that the potential buyer might offer for the building. **[25 marks]**

## **QUESTION TWO**

- a) Real estate finance can be classified into two, namely project finance and corporate finance. List and briefly explain three differences between the two categories.  
[3 marks]
- b) Distinguish between real estate securitization and mortgage backed securitization.  
[3 marks]
- c) List three differences between a mortgage pass through security and a mortgage pay through security.  
[3 marks]
- d) Briefly explain how leasing is a form of real estate finance  
[6 marks]
- [TOTAL 40 MARKS]**

## **SECTION B (60 marks)**

**Answer any three questions**

### **QUESTION THREE**

Critically analyze the survey approach as an approach to estimating discount rates for real estate vis-a-viz use of traditional risk models  
[20 marks]

**[TOTAL 20 MARKS]**

### **QUESTION FOUR**

- a) What are the major strengths and drawbacks of derivatives in real estate finance?  
[10 marks]
- b) Demonstrate how a call option works in real estate finance.  
[10 marks]
- [TOTAL 20 MARKS]**

### **QUESTION FIVE**

In the past five years, real estate finance in Zimbabwe has experienced low levels of finance from traditional market players: the institutional investors. Discuss.[20 marks]

**[TOTAL 20 MARKS]**

### **QUESTION SIX**

Examine the different approaches to diversification within the real estate portfolio  
[20 marks]

**[TOTAL 20 MARKS]**

**END OF EXAMINATION PAPER**