



# **MURANGA UNIVERSITY COLLEGE**

(A constituent College of Jomo Kenyatta University of Agriculture & Technology)

**MAIN CAMPUS**

## **ORDINARY UNIVERSITY EXAMINATIONS**

**2014/2015 ACADEMIC YEAR**

### **THIRD YEAR SECOND SEMESTER EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF COMMERCE**

**COURSE CODE:** HBF 2304

**COURSE TITLE:** INVESTMENT ANALYSIS & PORTFOLIO  
MANAGEMENT

**DATE:** 20<sup>TH</sup> APRIL 2015

**TIME:** 2 HOURS

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#### **INSTRUCTIONS TO CANDIDATES**

Question ONE (1) is compulsory

Answer ANY OTHER TWO (2) questions

MRUC observes ZERO tolerance to examination irregularities

This Paper Consists of 3 Printed Pages. Please Turn Over. ►

**QUESTION ONE (COMPULSORY)**

- a. Return on a typical financial investment normally consists of two components. Identify and explain these components (5 marks)
- b. A market has an expected return of 20% and a standard deviation of 12%. The risk free rate in the market is 17%. An investor in the market expects to earn a return of 18% by holding a market portfolio along with the risk free asset. Using the Markowitz mean-variance model, calculate;
- The reward to variability ratio (5 marks)
  - In what proportion should the investor combine the market portfolio with the risk free asset (6 marks)
  - Compute the risk of the above portfolio (4 marks)
- c. Investment and speculation are often erroneously used interchangeably. Explain the difference between the two (10 marks)

**QUESTION TWO**

- a. You have been provided with two securities X and Y whose returns under different economic conditions are given below;

Economic state	Probability of occurrence	Returns [%]	
		X	Y
A	0.10	30	-15
B	0.30	25	10
C	0.25	15	25
D	0.15	10	30
E	0.20	-5	35

- Determine the risk of the optimum portfolio consisting of X and Y (14 marks)
- b. Making reference to Markowitz Mean-Variance concept of efficient frontier, when is a portfolio said to be inefficient (3 marks)
- c. What steps are involved in portfolio selection as prescribed by the separation theorem (3 marks)

**QUESTION THREE**

- a. Using a well labelled diagram, to show the relationship between risk and return, explain the benefit of diversification in the context of risk (6 marks)
- b. A bond has a face value of Sh. 10,000 and pays interest at the rate of 12 percent per annum with a maturity period of 6 years. The current market price of the bond is Sh. 11000.
- i. Compute the bonds approximate yield to maturity using the formula method (4 marks)
  - ii. Calculate the bond's duration (10 marks)

**QUESTION FOUR**

- a. An investor holds a 10 percent 10 year Sh. 40,000 par value convertible bond. It has been established that the conversion price is Sh. 200 and the investors required rate of return is 14 percent. The common stock of the company is currently trading at sh. 260
- i. Using appropriate methods, advise the investor whether she can convert (4<sup>1</sup>/<sub>2</sub> marks)
  - ii. Compute the value of the bond at the date of conversion (4 marks)
- b. A company paid a dividend of Sh. 50 per share last year. An investor whose required rate of return is 10 percent is interested in this stock.
- i. Compute the value of this stock for the investor (2 marks)
  - ii. Assuming a 5 percent normal growth rate, what would be the value of the stock (3 marks)
  - iii. Further investigation has revealed that the 5 percent growth in this stock is supernormal and lasted for three years after which it leveled at 2 percent. Compute the value of the stock considering this new information (6<sup>1</sup>/<sub>2</sub> marks)