TECHNICAL UNIVERSITY OF MOMBASA
School of Business

DEPARTMENT OF BUSINESS ADMINISTRATION

UNIVERSITY EXAMINATIONS FOR DEGREE IN

BACHELOR OF COMMERCE

BFI 4402: PORTFOLIO AND INVESTMENT ANALYSIS

END OF SEMESTER EXAMINATIONS

SERIES: MAY 2016

TIME: 2 HOURS

Instructions to Candidates
You should have the following for this examination
- *Answer Booklet*
- *Examination Pass*
- *Student ID*

This paper consists of five questions in TWO sections A & B
Attempt question ONE (Compulsory) and any other TWO questions
This paper consists of TWO printed pages
Do NOT write on the question paper
Mobile phones are NOT allowed in the examination room

QUESTION 1 (Compulsory)

a) Describe the main approaches to valuation of securities in an efficient capital market and explain why there are always security analysts despite the capital markets being efficient.   **(10 marks)**

b) You have been hired as a Financial Analyst by Radiant Securities and your boss has assigned you the task of investing Kes. 1M for a client who has a one-year investment horizon. You have been asked to consider the following investment alternatives: T-Bills, Stock A, Stock B, Stock C and Market Index. Radiant securities has developed the probability distribution for the state of the economy, and equity researchers of Radiant Securities have estimated the rates of return under each state of economy. You have gathered the following information from them:

State of economy	Probability	Returns on alternative investments (%)				
		T-Bills	**Stock A**	**Stock B**	**Stock C**	**Market Portfolio**
Recession	0.2	6	(15)	30	(5)	(10)
Normal	0.5	6	20	5	15	16
Boom	0.3	6	40	(15)	25	30

Your client is a very curious investor who has heard a lot relating to portfolio and asset-pricing theory. He requests you to answer the following questions:

i) What is the expected return and standard deviation of return for stocks A, B, C and the market portfolio. **(8 marks)**

ii) What is the covariance between returns on A and B. **(2 marks)**

iii) What is the co-efficient of correlation between returns of A and B. **(2 marks)**

iv) What is the expected return and standard deviation on a portfolio in which stocks A and B are equally weighted. **(4 marks)**

v) What type of risks are associated with the above securities and how can they be reduced. **(4 marks)**

QUESTION 2

a) Using appropriate illustrations, explain how an investor can use tactical analysis to predict stock prices. **(8 marks)**

b) Charles Dow formulated a hypothesis that stock market does not perform on a random basis but is influenced by three distinct cyclical trends that guide its general direction. This view contradicts the EMH. Discuss the arguments in favour and against market efficiency. **(12 marks)**

QUESTION 3

a) Active bond management is an attempt by the analyst to outperform, on a risk-adjusted basis, a passive bench-mark portfolio. Briefly describe **FOUR** active bond portfolio management strategies. **(12 marks)**

b) Briefly describe what an indexing portfolio strategy is and why it is used. **(8 marks)**

QUESTION 4

a) Distinguish between security market line and capital market line. Show illustrations. **(8 marks)**

b) Brazuka holdings is a company experiencing rapid growth. Last year's Dividend Per Share (DPS) was Kes 4/- and the company expected to record a supernormal profit of 20% p.a. for the first 5 years, and thereafter, growth is expected to stabilize at 10% p.a in futurity. Equity capitalization rate is 15% p.a.

You are required to determine the current market price per share of this company. **(12 marks)**

QUESTION 5

a) Define "bond indenture" and outline the various covenants that are available to bond holder.

(8 marks)

b) You are given information relating to FOUR types of bonds:

BOND TYPE	YIELD TO MATURITY		PRICE	
	$t = 0$	$t = 1$	$t = 0$	$t = 1$
10 – Year, zero coupon	10%	11%	385	352
10-year, 10% selling at par	10%	11%	1,000	940
10-year, 10% selling at 750	14.88%	16.37%	750	692
20-year, zero coupon	10%	11%	149	124

Calculate the interest elasticity co-efficient of each type of bond.   **(12 marks)**