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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR
FOURTH YEAR, SECOND SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF SCIENCE
(BUSINESS ADMINISTRATION)

Date: 14th April, 2023
Time: 2.30pm –4.30pm

KFI 406 - INVESTMENT ANALYSIS 11

INSTRUCTIONS TO CANDIDATES

ANSWER **QUESTION ONE (COMPULSORY)** AND **ANY OTHER TWO** QUESTIONS

QUESTION ONE (30 MARKS)

a) Ruger is an avid investor in the financial markets. He recently read in the Daily Nation that the derivatives market in Kenya is underdeveloped and could be a good opportunity for him. He has approached you with a proposition for a potential investment and wants some advice. He wishes to buy a contract worth Ksh. 2,200 today. The risk-free rate is 7% and he expects to hold it for a period of 6 months. However, 3 months after buying the contract, he notices that the spot rate has changed to Ksh. 2,240 and that the risk-free rate has also changed to 8.5%.

i) Calculate to determine whether he should sell the contract or continue holding onto it. (6 marks)

ii) Outline any two unique features that apply to forward contracts such as the one Ruger wishes to invest in. (4 marks)

iii) Identify three parties that are likely to participate in derivatives such as the one in this excerpt. (6 marks)

b) Derivatives are some of the securities that require high-level analysis. As such, describe the following terms to Ruger as used in security analysis and give examples in each, to help him make wise investment decisions;

i) Fundamental analysis (3 marks)

ii) Technical analysis (3 marks)

c) Describe three ways in which the "beta" can be applied as a measure of risk commonly used in portfolio analysis such as the excerpt above. (6 marks)

d) Differentiate between an American option and European option as investment instruments traded in derivative markets such as the one in the excerpt. (2 marks)

QUESTION TWO (20 MARKS)

a) The interest rates placed on bonds are subject to their maturities and risk profiles and this relationship is adequately described through yield curves. With the help of appropriate diagrams, illustrate three yield curves that describe this relationship. (10 marks)

b) Wilson is considering purchasing a forward contract with a market price of Ksh. 1,000,000 today. The prevailing T-bill rate as per the CBK is 9.5%. If he is considering a 9-month forward contract on the asset, calculate the intrinsic value of the forward contract. (4 marks)

c) The derivatives market is still under-developed in Kenya. However, it is believed that an increased understanding on these instruments could increase their trading in the country. As such, highlight their possible applications by investors. (6 marks)

QUESTION THREE (20 MARKS)

a) It is important for an investor to understand the company in which they wish to invest in; history, performance, products and market share among other dynamics. As such, using an appropriate diagram, discuss the life cycle of a firm as used in security analysis and the unique features of each stage. (10 marks)

b) Investors prefer a bond with a higher required rate of return compared to its coupon rate. In your opinion, explain why this is the case. (4 marks)

c) Describe the industry factors that an investor needs to analyse before making the final investment decision on a potential asset. (6 marks)

QUESTION FOUR (20 MARKS)

The following information on assets "A" and "B" is available.

Chance of getting good returns		Returns of Asset A	Returns of Asset B
Very high	20%	40%	-12%
High	20%	35%	25%
Moderate	40%	-35%	35%
Low	20%	-25%	40%

Required:

i) Calculate the expected returns of assets "A" and "B". (4 marks)

ii) Calculate the standard deviation of assets "A" and "B". (6 marks)

iii) Calculate the expected return of a portfolio comprising 70% asset "A" and 30% asset "B". (3 marks)

iv) Calculate the standard deviation of the portfolio and comment on your answer. (7 marks)

QUESTION FIVE (20 MARKS)

a) Various theories have been proposed to explain the relationship between risk and maturity of interest rates of fixed income securities, and their resulting yield curves. Elucidate on the theories of term and risk structure of interest rates.

(6 marks)

b) Bond strategy is the management of bond portfolios with the objective of either increasing returns based on anticipated changes in bond-pricing factors. Discuss four bond strategies that an investor may adopt.

(8 marks)

c) When creating portfolios, one should know how the returns of assets in a portfolio relate to each other. This relationship is determined using various measures which give different outputs. As such, with relevant examples, describe the difference between the covariance and the correlation coefficient as used in portfolio analysis.

(6 marks)