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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR**  
**FOURTH YEAR, SECOND SEMESTER EXAMINATION**  
**FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**(BUSINESS ADMINISTRATION)**

Date: 8<sup>th</sup> August, 2024  
Time: 8.30am –10.30am

**KFI 2406 INVESTMENT ANALYSIS 11**

**INSTRUCTIONS TO CANDIDATES**

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

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**QUESTION ONE (30 MARKS)**

**CASE STUDY**

**INVESTMENT ENVIRONMENT AND PORTFOLIO MANAGEMENT**

A social welfare group (Real Investors Group) has saved sh. 15,000,000 over the last ten years. The members are considering investing the money either into Corporate Bonds, Government Bonds or Real Estate investment. The investment manager is convinced that the Government Bonds are the best short-term investment option considering higher interest yields offered compared to the yield for Government Bonds. The economic environment has been quite erratic: inflation, natural calamities, high interest rates and a weak home currency have been a bother to investors. These unfavourable market factor changes are owed to an impending national elections which has scared away several local and foreign investors.

Financial risk exposure suggests the need to consider derivatives besides other conventional financial risk management practices. Derivative markets have been key in offering various financial contracts to hedge financial risk. Shareholders are keen on having the best returns from the investment option that the investment manager considers ideal. Portfolio managers have lately considered a mix of Bonds and Real estate investments as they continue shunning Stocks. Over-the Counter (OTC) trading seems to be the most popular derivatives market compared to exchange traded derivatives though the country's information technology support system is not quite developed to efficiently execute derivatives.

Required: attempt the following questions in relation to the case study above:

- Describe the problem of market risk in the context of Real Investors Group and how beta factor could be useful in assessing their impending investment. (6 marks)
- Discuss the political risk scenario and its effect on Bond investments in view of Real Investors Group. (6 marks)
- Explain any three factors that are bound to affect the value of real estate in the context of the case study (6 marks)
- Describe any three types of active financial risk management practices that the group could adopt as some kind of insurance for their investment. (6 marks)
- Recommend any three bond management strategies that the investment manager of Real Investors Group could equally adopt to create value for the members. (6 marks)

## **QUESTION TWO (20 MARKS)**

- a) Describe three participants in derivatives markets. (6 marks)
- b) Explain the concept of beta factor in view of systematic risk for investment. (4 marks)
- c) Citing appropriate examples, distinguish between currency swaps and interest rate swaps in the context of derivative contracts. (6 marks)
- d) Discuss two types of operational risk in banking and value of investment. (4 marks)

## **QUESTION THREE (20 MARKS)**

- a) Discuss liquidity preference theory of terms structure of interest rates by drawing a diagram to demonstrate the link between yield and term to maturity for Bonds. (6 marks)
- b) Explain the Bond immunization strategy by citing an appropriate examples (4 marks)
- c) City Investment Builders Ltd. has obtained some sh. 10,000,000 to invest in apartments. The management of the company is keen on buying two apartments (for rental purposes) along Thika road and Mombasa road. The company intends to hold this portfolio of 2 apartments with the apartment in Mombasa road selling for sh. 4,000,000 (40% of the wealth) whereas the one on Thika road is selling for sh. 6,000,000 (60% of the wealth). The investor has been provided by the following information regarding to performance of apartments in the two areas over the last few years:

State of nature	Probability	Returns	Returns	Market Portfolio
		<u>Thika Rd.Apt)</u>	<u>(MSa.rd.Apt)</u>	<u>(m)</u>
Good	0.20	15%	18%	20%
Average	0.50	10%	20%	14%
Bad	0.30	6%	(4%)	5%

### **Required:**

- i) Compute the expected returns of Thika Rd. Apt and Msa rd. Apt (4 marks)
- ii) Compute the standard deviation of the two investments and comment on their financial stability (6 marks)

## **QUESTION FOUR (20 MARKS)**

- a) Discuss market segmentation hypothesis in the context of term structure of interest rates. Your discussion should be supported by two relevant examples. (4 marks)
- b) Distinguish between effective duration and modified duration in view of Bond duration (4 marks)
- c) ABC Limited has exported 2,000kgs of sugar (on credit) to a British firm in East London at a price of sh. 4,000 UK pounds (the exchange rate is 1 UK pound for 180 Kenya shillings). The British firm promises to pay up the 4,000 UK pounds three months from the date of sale. Advise ABC Limited on how it could utilize Put Options to hedge exchange rate risk in this transaction. (6 marks)
- d) Describe three basic principles of portfolio construction as proposed by Markowitz (1952) (6 marks)

**QUESTION FIVE( 20 MARKS)**

- a) Discuss any four types of financial risks that are bound to affect stock market investments in a developing country such as Kenya. (8 marks)
- b) An investor is keen on investing in shares and bonds. She visits a stock market and subsequently comes across two securities (X and Y) that look promising compared to ten others in the same market. Upon their evaluation, she finds their risks and returns as follows:

<u>X</u>	<u>Y</u>
Expected returns.....15%	20%
Standard deviation.... 0.35	0.13

**Required:**

- i) Advise the investor on the best investment option based on the contributions of Markowitz (1952) on risk diversification and portfolio selection (6 marks)
- ii) Compute the coefficient of variation of the two investments and advise on investment stability. (6 marks)