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

Date: 14<sup>th</sup> August, 2024  
Time: 11.30am – 1.30pm

**KFI 2306 RISK MANAGEMENT**

**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**

**ELECTIONS ANXIETY AND HOUSING STRESS**

A country in Central Africa has an impending national elections early next year. Due to political uncertainty, demand for housing has dampened; supply for housing has equally taken a break with developers adopting a '*wait and see*' approach to new developments! Several people are contemplating moving closer to the cities to cushion themselves against political risk which is more prevalent in rural areas. The government has equally introduced new policies to protect investment risk in real estate. Mortgage lenders have been on a go-slow in lending to individuals who intend to build their residential houses. The federal/County governments have urged residents to shun political violence: but most of the electorate are quite charged! The situation is quite uncertain for Insurance firms too. Most of the private insurance firms have introduced political risk insurance policy covers for the real estate sector. Though commercial real estate owners are keen on such policy covers, a good number of individual investors may not afford such: they are increasingly becoming vulnerable to political risk. Landlords are keen on holding on to their tenants as the rental market becomes uncertain.

The Ministry of Housing has introduced a new law to protect private citizens who have rented property- they may not be evicted if they do not pay rent on time since the economic situation is not that good. This has made most landlords unhappy. The inflation rate is rising steadily. The prices of construction inputs are unbearable to many developers. They are considering importation of the inputs though the government has equally introduced import tax on such inputs. The sales price for residential housing has declined significantly; the same case applies to commercial housing though the latter has better prices. Real income has dampened hence a good number of citizens may not afford high end rental units (they are opting for suburbs and rural housing). The government is not having it easy either. International relations are at stake: for the regional summit scheduled at the capital city has been cancelled due to insecurity.

The opposition has threatened to run a parallel government if the incumbent 'steals the vote'. Consequently, money markets have since reported shortages. The government is contemplating borrowing externally for local borrowing has declined massively. The Minister for Finance is keen on raising taxation rates for individual income and corporate income. The situation is getting economically unstable. The country's stability is at stake for wealthy locals are fleeing to the neighbouring countries as they adopt a 'wait and see' attitude. The political, social and economic struggle continues.

**(Note: this case study has been coined purely for academic purposes)**

**Having read the case study above, you are required to:**

- a) Discuss three reasons why insurance becomes important for lenders and landlords in the circumstances in the Country (6 marks)
- b) Discuss systematic risk for the benefit of an investor who is considering investing in the country in Central Africa (6 marks)
- c) Distinguish between operational and financial risk in relation to the case study above (6 marks)
- d) Explain credit/default risk (from the perspective of mortgage lenders) considering the political uncertainty as documented in the case study above (6 marks)
- e) Explain how Call option and Put option derivative contracts could help hedge financial risk as described in the case study (6 marks)

**QUESTION TWO (20 MARKS)**

- a) Describe country risk by citing three examples of such risks in a developing country such as Kenya (8 marks)
- b) A US firm has won a contract to supply 2,350 auto parts to Fly Kenya Limited (a Kenyan Airline) on 15<sup>th</sup> November 2021. However, the payment of \$1,000,000 will be made on 15<sup>th</sup> March 2022 effectively exposing the Kenyan Airline to a US dollar transaction exposure. Discuss how Fly Kenya Limited could use Call Options on US dollars to hedge its transaction exposure (4 marks)
- c) Discuss four basic principles of portfolio management in view of Markowitz (1952) in his *Portfolio Selection* journal article (8 marks)

**QUESTION THREE (20 MARKS)**

- a) Distinguish between the principle of subrogation and principle of indemnity in the context of insurance (8 marks)
- b) Describe the problem of systematic risk and how beta factor could be a good indicator of the extent of a firm's vulnerability to such a risk (6 marks)
- c) Describe three financial risk management practices (other than Derivatives) that a Commercial bank could adopt to hedge foreign exchange rate risk (6 marks)

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

- a) Discuss any three principles of insurance as a solution to risk management for business enterprises (6 marks)
- b) Describe any three moral hazards in credit markets. (6 marks)
- c) A Kenyan firm expects to pay \$15,000 (for an Equipment) to a US firm in about three months. The Kenyan shilling continues to depreciate in value against the US dollar. Advise the firm how it could hedge exchange rate risk using:
- i) Call Option contract (assuming they are being traded in Kenya) (4 marks)
- ii) Forward contract (4 marks)

#### **QUESTION FIVE( 20 MARKS)**

- a) ABC Limited is a manufacturing firm in Kenya. The firm has been awarded a tender to supply 1,500kgs of tea to a firm in UK (Mint Holdings Inc.). The price of 450,000 Kenya shillings is meant to be paid in the next three month. Meanwhile, the Kenya shilling keeps appreciating/strengthening over the UK pound. Explain how Mint Holdings Inc. could negotiate a Forward contract to hedge its currency risk (4 marks)
- b) City Dwellings Limited has secured financing for sh. 100,000,000 to invest in real estate. The Directors of the company are keen on buying land, buying cheap stand-alone rental houses and buying a bungalow (for rental). Out of the 3 possible investments, they have settled on a portfolio of land and a rentals- 25% of their investment will go into land. Consider the financial information below:

<b>Probability</b>	<b><u>Rentals (R)</u></b>	<b><u>Land (L)</u></b>	<b><u>Market</u></b>	<b><u>Index</u></b>	<b><u>(m)</u></b>
0.50	10%	15%	20%		
0.30	16%	10%	10%		
0.20	7%	(3%)	6%		

#### **Required:**

- i) Compute the expected returns for Rentals and Land (4 marks)
- ii) Compute the standard deviation for Rentals and advise accordingly (4 marks)
- iii) Compute the Coefficient of Variation for Rentals and advise on the stability of Rentals (as an investment) compared to Land which is assumed to have a Coefficient of Variation of 1.56 (4 marks)
- iv) Explain how an investor could adopt risk diversification principles (by Markowitz, 1952) in line with Portfolio Theory in order to manage investment risk (4 marks)