TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences

Department of MATHEMATICS & Physics

UNIVERSITY EXAMINATION

BFI 4456 FINANCIAL RISK MANAGEMENT

END OF SEMESTER EXAMINATION

SERIES:AUGUST2024

TIME:2HOURS

DATE:Pick DateAug2024

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of five questions. Attemptquestion ONE (Compulsory) and any other TWO questions.

Do not write on the question paper

Question 1

a) Risk is divided into two major categories. Discuss (10mks)

a) Assume we have two investments with the following assumptions and following outcomes and probabilities of income as shown.

Assumptions	outcome Shs000		Probability	
	A	B	A	B
Pessimistic	400	500	0.1	0.2
Probable	900	800	0.6	0.6
Optimistic	1200	1400	0.3	0.2

Required.

i) Calculate the standard deviation and make your conclusion (6mks)

ii) Calculate the coefficient of variation and comment on the results (4mks)

b) Differentiate between risk mitigation and risk assessment ((10mks)

c) Derivatives are important tools for risk mitigation. Discuss any three types of derivatives. (10mks)

Question 2

a) What is a risk register and how do risk managers use it? (10mks)

b) What is diversification and how does it mitigate risks? (10mks)

Question 3

a) Define the term risk and show any four ways through which financial risks could arise. financial risks arise in an organization (10mks)

b) Discuss the following risks Country, inflationary and interest rate risk (10mks)

Question 4

a) Discus any three methods for calculating risk and show their formulae. (10mks)

b) Explain the terms Hedging and Correlation as used in risk management (10mks)

Question 5

a) Define the term securi**tization and discuss any two asset types used for this purpose. (10mks)**

b) Discuss stress testing as used in risk management. (10mks)