



**STRATHMORE BUSINESS SCHOOL
BACHELOR OF FINANCIAL SERVICES
END OF SEMESTER EXAMINATION
BFS 4101: FINANCIAL RISK MANAGEMENT**

DATE: Tue, 23rd July 2024

TIME: 15:30 – 17:30

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

QUESTION ONE

Question 1A

The use of derivatives in hedging risks have inherent risks that still require monitoring and mitigation.

Required;

- a) Explain the risks that arise from the use of Forwards, Futures, and Swaps. **(6 marks)**
 - b) Critically evaluate the use of the 'Greeks'-Delta and Vega in managing risks in the Options. **(5 marks)**
 - c) Show in a table the effect of an increase in the price of the underlying stock, the exercise price, volatility of the share price and time to expiry on the fair value of a call option and a put option. **(4 marks)**
- (Total 15 marks)**

Question 1B

Basel Committee on Banking Supervision is an international organization that sets standards and guidelines for banking regulations worldwide. The primary goal of the Basel Committee is to enhance financial stability by promoting effective banking supervision and regulation.

Required;

- a) Compare and contrast the aims/objectives, benefits and limitations of Basel I, Basel II and Basel III in managing risks in Banks **(12 marks)**
 - b) XYZ bank has projected a 40% probability of default for its Kshs.10 million unsecured loan portfolio designated as digital loans. The current outstanding loan balances is at Kshs.4 million. XYZ can recover Kshs.1.825 million **(3 marks)**
- (Total 15 marks)**

(TOTAL 30 MARKS)

QUESTION TWO

Risk management can be an influential process driving strategic planning and resource allocation as opposed to a mere compliance exercise. As a chief risk officer of Bank ABC, one of your tasks is to implement an Enterprise Risk Management (ERM) process. The BOD asks you to write a brief on ERM.

Required;

In the brief

- a) Justify the implementation of ERM process at Bank ABC. **(6 marks)**
- b) Explain how you would conduct risk identification, analysis, and evaluation at Bank ABC. **(6 marks)**
- c) Using specific examples, evaluate the different risk management response strategies that Bank ABC could apply. **(8 marks)**

(TOTAL 20 MARKS)

QUESTION THREE

A) Volatility is a statistical measure of the dispersion of returns for a given financial asset. In most cases, the higher the volatility, the riskier the security.

Required;

Using specific examples, explain the types of volatility that may exist in financial markets and institutions. **(8 marks)**

You are presented with the following information concerning the returns of C Ltd and the market portfolio according to various states of the economy simplified to three.

State of the economy	Probability	Returns on C ltd (%)	Returns on Market portfolio (%)
1	0.2	15	10
2	0.4	14	16
3	0.4	26	24

Required;

Calculate

- i. The expected return and the standard deviation for C Ltd and the market portfolio. **(4 marks)**
- ii. The coefficient of variation for C Ltd and the market portfolio. **(2 marks)**
- iii. The coefficient of correlation between the return on C Ltd and market portfolio. **(4 marks)**
- iv. Interpret the results in ii) and iii) above. **(2 marks)**

(TOTAL 20 MARKS)

QUESTION FOUR

You are a risk manager of Company ABC. The chief risk officer (CRO) is planning to conduct a risk management workshop and asks you to prepare a presentation on the following:

- a) Setting a risk appetite and risk tolerance levels **(5 marks)**
- b) Value at risk (VAR) and the expected loss as measures of risk **(5 marks)**
- c) Stress testing and reverse stress testing. **(5 marks)**
- d) Monte Carlo simulation outlining the strengths and weaknesses **(5 marks)**

(TOTAL 20 MARKS)

QUESTION FIVE

There is a universal agreement that the role of the board of directors in financial risk management is crucial. Likewise, there is essentially universal agreement that it is not necessary for the board members to be rocket scientists; instead, the members of the board of directors need to know the right questions to ask.

Required;

- a) Explain **three** models of corporate governance **(5 marks)**
- b) Critically, evaluate the role of the Board of Directors in the management of Credit and Liquidity risks in Banks in Kenya **(15 marks)**

(TOTAL 20 MARKS)