



TECHNICAL UNIVERSITY OF MOMBASA

School of Business

Department of Mathematics & Physics

UNIVERSITY EXAMINATION FOR: BACHELOR OF SCIENCE, MATHEMATICS AND FINANCE UNIT: BFI 4353 FINANCIAL ENGINEERING

END OF SEMESTER EXAMINATION

ORDINARY PAPER

SERIES: APRIL 2020

TIME: 2 HOURS

DATE: Pick Date 2022

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt **question ONE** (Compulsory) and any other **TWO** questions.

Do not write on the question paper.

Question ONE (COMPULSORY)

- a) Explain what one should do at the maturity of Treasury bills, treasury bonds and treasury notes (10mks)
- b) Define a derivative. Then discuss any three types of a derivative (10mks)
- c) Discuss any three functions of a Commercial Bank. (10mks)

Question 2

- a) Define a commercial bank and then discuss its functions. (10mks)
- b) Differentiate between Exotic option and Traditional options (10mks)

Question 3

- a) Discuss the following types of risks, Business risk, Credit risk and Country risk. (10mks)

- b) How does investor psychology impact risk-taking and investment decisions?
(10mks)

Question 4

- a) What is market exposure? (10mks)
- b) Discuss the various components of risk management process in the bank.
(10mks)

Question 5

- a) Explain how you would select a Financial Instrument Valuation Method.
(10mks)
- b) Define a financial market and clearly show its participants, types and its structure.
(10mks)