



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATION
2020/2021 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
DOCTOR OF PHILOSOPHY IN BUSINESS
ADMINISTRATION**

COURSE CODE: DBA 9206

COURSE TITLE: FINANCIAL THEORY

DATE: 3RD JUNE, 2021

TIME: 1430 – 1730HRS

INSTRUCTIONS TO CANDIDATES

*Answer any **four** questions*

QUESTION ONE (15 MARKS)

- i) Discuss the principles associated with the Von Neumann-Morgenstern expected utility frame work and its linkage to St.Peterberg Paradox (5 marks)
- ii) Explain the concept of Daniel Bernoulli on Utility functions and diminishing marginal utility relation to risk a version and risk premia (5 marks)
- iii) A rational investor chooses portfolio of assets that efficiently trade of higher expected return for lower variance of return. Discuss this based on the portfolio theory (5 marks)

QUESTION TWO (15 MARKS)

- i) Explain the application of the following theoretical models in finance
 - a) Consumption Oriented Capital Asset Pricing Model (CCAPM) (3 marks)
 - b) Capital Asset Pricing Model (CAPM) (3 marks)
 - c) Intertemporal Capital Asset Pricing Model (ICAPM) (3 marks)
- ii) On the basis of Dybrig and Ross (1989) arguments, describe the conditions for the “Fundamental theorem of Asset Pricing” (6 Marks)

QUESTION THREE (15 MARKS)

- a) With suitable examples, discuss the state price deflator techniques (4 marks)
- b) Explain the importance of information ratio in the determination of optimal risky portfolio using single index models. (4marks)
- c) Discuss the concepts in prospects theory in finance (3marks)
- d) The CAPM implications are embedded in two predictions. Using suitable concepts of finance explain these predictions. (2 marks)

QUESTION FOUR (15 MARKS)

- i) Discuss the criticisms of Arbitrage Pricing Theory (APT) (3 marks)
- ii) “ the demise of Modern Portfolio Theory and the Birth of an investment Renaissance” discuss the paradigm Shifts in this claim. (6 marks)
- iii) Discus briefly the following theories in relation to their application in finance:
 - a) Theory of SACCOs (2 marks)
 - b) Capital Structure Theories (2 marks)
 - c) Gordon Model of Dividend Relevance (2 marks)

QUESTION FIVE (15 MARKS)

- a) Discuss the Fama-French Five factor Models in relation to their relevance and application (5 Marks)
- b) Using a suitable sketch explain the concept efficient frontier in portfolio selection. (3 marks)
- c) Explain the importance of the input list of the Markowitz model in relation to the success of portfolio selection. (4 marks)
- d) Discuss briefly the expected return-Beta relationship as expressed in single index models. (3 marks)

QUESTION SIX (15 MARKS)

The idea of Martingale pricing as fronted by Harrison and Kreps in 1979 showed that the martingale binomial logic could be generalized to a more abstract setting with continuous or discrete asset pricing process. This abstract approach has a big impact on finance theory. Discuss.

(15 marks)

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