



# MURANG'A UNIVERSITY OF TECHNOLOGY

## SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS AND ACTUARIAL SCIENCE

UNIVERSITY ORDINARY EXAMINATION

2018/2019 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF  
SCIENCE IN ACTUARIAL SCIENCE

AMC 202 – INVESTMENT AND ASSET MANAGEMENT 1

DURATION: 2 HOURS

DATE: 17/04/2019

TIME: 9:00-11:00 AM

**Instructions to candidates:**

1. Answer question One and Any Other Two questions
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

## SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

### QUESTION ONE (30 MARKS)

- a) Describe the five elements of investment that financial managers consider while choosing investment vehicles 5mks
- b) Distinguish between investment and arbitrage 2mks
- c) Discuss the following types of investment risk
- i) Currency risk 1mk
  - ii) Liquidity risk 1mk
  - iii) Concentration risk 1mk
  - iv) Credit risk 1mk

For each risk in (c) above, discuss a possible strategy that you would use as an Actuary to mitigate or reduce it while choosing investment vehicles 4mks

- d) i) Discuss the term '*valuation*' of a company 1mk
- ii) Why is valuation important in investment and asset management 3mks
- e) i) What is a portfolio?
- ii) Discuss three key elements of portfolio management 6mks
- f) Discuss two basic ways in which companies can raise capital for expansion and usual operations 2mks
- g) Distinguish between primary market and secondary market and secondary market for shares of companies 2mks

## SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

### QUESTION TWO (20 MARKS)

- a) Explain the risk-return trade off a principal of financial and investment management 2mks
- b) Explain why preferred stock is considered riskier than corporate bonds by investors 2mks
- c) What are the functions of the Capital Markets Authority (CMA) in Kenya 5mks
- d) Discuss seven objectives of portfolio management 7mks
- e) i) Differentiate between bank deposits and public deposits as tools of investment 2mks
- ii) What are the advantages of funding a company through public deposits as opposed to bank loans 2mks

**QUESTION THREE (20 MARKS)**

- a) Describe how mutual funds operate 2mks
- b) In finance, an investment strategy is a set of rules, behaviors and procedures designed to guide an investor’s selection of an investment portfolio. Discuss the five most popular investment strategies used by investors. 10mks
- c) Distinguish between fundamental analysis and technical analysis as used in finance, investment analysis and asset management. 2mks
- d) Discuss three main roles of an investment actuary. 3mks
- e) Investment risk is the chance of financial loss due to decline in the value of an investment over time. Discuss the following measures of risk-adjusted performance as used by portfolio managers.
  - i) Standard deviation 1mk
  - ii) Value at risk 1mk
  - iii) Beta values 1mk

**QUESTION FOUR (20 MARKS)**

- a) Distinguish between debentures and government bonds as investment vehicles, building your answer around the five key elements of investment 5mks
- b) A portfolio comprises shares of three companies: A, B, and C. The share prices were recorded for each company at the end of a given year alongside the dividend rate per share as follows.

Company	Number of shares	Opening stock price	Closing stock price	Dividend per share	Beta
A	2000	30	28	1	1.5
B	1000	55	65	2	1.2
C	500	125	140	5	0.8

The relevant risk free rate is 5%, and the actual return on the applicable broad market index (benchmark) is 9.5%. Calculate the alpha of the portfolio. 9mks

- c) Discuss any three methods of valuing investments 6mks