



**MASINDE MULIRO UNIVERSITY OF SCIENCE AND
TECHNOLOGY
(MMUST)**

MAIN/BUNGOMA/WEBUYE/KAPSABET/MUMIAS/NAIROBI CAMPUS

**UNIVERSITY EXAMINATIONS
2021 /2022 ACADEMIC YEAR
FOURTH YEAR SECOND SEMESTER EXAMINATIONS**

FOR THE DEGREE

OF

BACHELOR OF COMMERCE

COURSE CODE: BCF 429

COURSE TITLE: PORTFOLIO MANAGEMENT

DATE: Tuesday 26TH APRIL 2022 TIME: 8-10AM

INSTRUCTIONS TO CANDIDATES

Answer **QUESTION ONE** and **ANY OTHER TWO** questions.

TIME: 2 HOURS

MMUST observes ZERO tolerance to examination cheating ▲

This Paper Consists of 4 Printed Pages. Please Turn Over.

QUESTION ONE COMPULSORY (30 Marks)

Assume that you plan to construct a portfolio aimed at achieving your stated objectives. The portfolio can be constructed by allocating your money to the following asset classes: common stock, bonds, and short-term securities.

- a) Identify, state and comment your investment objectives. (3marks)
- b) Determine an asset allocation to these three classes of assets considering your stated investment objectives. Explain your decision. (3 marks)
- c) Distinguish strategic and tactical asset allocation. What changes in investor's circumstances cause the rebalancing of the investment portfolio? (3 marks)
- d) What does covariance measure? If two assets are said to have positive covariance, what does it mean? (3marks)
- e) Explain, why doesn't an estimated absolute covariance number tell the investor much about the relationship between the returns on the two assets? (3marks)
- f) If the risk-free rate of return is 6% and the return on the market portfolio is 10%, what is the expected return on an asset having a Beta of 1.4, according to the CAPM? (3marks)
- g) Briefly describe each of the portfolio performance measures and explain how they are used:
 - i. Sharpe's ratio (4marks)
 - ii. Treynor's ratio (4marks)
 - iii. Jensen's Alpha. (4marks)

QUESTION TWO (20 marks)

- a) Refer to the following information on joint stock returns for stock 1, 2, and 3 in the table

Probability	Return for stock		
	Stock 1	Stock 2	Stock 3
0.20	0.20	0.25	0.10
0.30	-0.05	0.10	0.05
0.25	0.10	0.05	0
0.25	0	-0.10	-0.05

If you must choose only two stocks to your investment portfolio, what would be your choice? Present your arguments and calculations, to explain your decision. (5marks)

- b) In terms of the Markowitz portfolio model, explain, how an investor identify his / her optimal portfolio. What specific information does an investor need to identify optimal portfolio? **(5marks)**
- c) Many of underlying assumptions of the CAPM are violated in some degree in “real world”. Does that fact invalidate model’s calculations? Explain. **(5marks)**
- d) What does efficient market hypothesis explain **(5marks)**

QUESTION THREE **(20 marks)**

Refer to the following observations for stock A and the market portfolio in the table:

Month	Rate of return	
	Stock A	Market portfolio
1	0.30	0.12
2	0.24	0.08
3	-0.04	-0.10
4	0.10	-0.02
5	0.06	0.08
6	0.10	0.07

- a) Calculate the main statistic measures to explain the relationship between stock A and the market portfolio:
- The sample covariance between rate of return for the stock A and the market. **(3 marks)**
 - The sample Beta factor of stock A. **(3 marks)**
 - The sample correlation coefficient between the rates of return of the stock A and the market. **(3 marks)**
 - The sample coefficient of determination associated with the stock A and the market. **(3marks)**
- b) Draw in the characteristic line of the stock A and give the interpretation – what does it show for the investor? **(5marks)**
- c) Why is the asset allocation decision the most important decision made by investors? **(3marks)**

QUESTION FOUR **(20 marks)**

- a) What is the purpose of bond ratings? If the bonds ratings are so important to the investors why don't common stock investors focus on quality ratings of the companies in making their investment decisions? **(5marks)**

- b) What is the difference between the market expectation theory and the liquidity preference theory? **(2 marks)**
- c) Bond with face value of shs.1000, 3 years time to maturity and 10 % coupon rate, makes semiannual coupon payments and provides 8% yield-to-maturity.
- i. Calculate the price of the bond. **(2marks)**
 - ii. If the yield-to-maturity would increase to 9%, what will be the price of the bond? How this change in the yield-to-maturity would influence bond price? **(3marks)**
 - iii. Calculate the bonds duration and determine the change in price if the interest rate falls by 1.5%. **(3marks)**
- d) How would an asset manager use active bond management strategies to achieve an investors goals and objectives. **(5marks)**