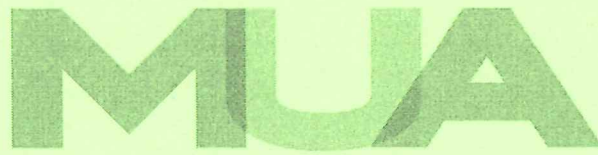


The
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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF COMMERCE

FIN 414 : PORTFOLIO ANALYSIS MANAGEMENT

DATE: 6TH AUGUST 2024

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

QUESTION ONE

Read the following case and answer the questions that follow:

Wakesho Investments Company has conducted preliminary feasibility studies and identified four investment projects for further analysis and consideration. The four investments are; P, Q, R and S. The distribution of returns of the investment projects are as shown below:

Probability of Occurrence	Rate of return (%)			
	P	Q	R	S
0.1	10%	2%	15%	6%
0.2	10%	3%	12%	9%
0.4	10%	8%	10%	10%
0.3	10%	20%	7%	12%

Required:

- a) Calculate the expected return of each investment. **(8 Marks)**
- b) Compute the standard deviation of each investment. **(8 Marks)**
- c) Rank the investments from the most preferred to the least preferred, and cite the reason for your ranking. **(4 Marks)**
- d) Demonstrate why Wakesho Investments Company should hold portfolios of investments rather than any single investment. **(5 Marks)**

QUESTION TWO

- a) Describe the following types of efficiency in relation to securities markets:
 - i) Allocative Efficiency **(2 Marks)**
 - ii) Operational Efficiency **(2 Marks)**
 - iii) Information Efficiency **(2 Marks)**
- b) Examine three factors responsible for bond price fluctuations in the secondary securities markets showing through examples how each affects bond prices. **(9 Marks)**

QUESTION THREE

- a) An investor holds a portfolio with sh 70,000 invested in Asset X and sh 30,000 invested in Asset Y. The expected return on Asset X is 10%, and the expected return on Asset Y is 8%.

Required:

Determine the expected return of the portfolio.

(5 Marks)

- b) Critique five assumptions upon which the Capital Asset Pricing Model (CAPM) is anchored.

(10 Marks)**QUESTION FOUR**

Data for the rates of return for three assets; X, Y and Z has been tabulated below:

Probability of Occurrence	Rate of return (%)		
	X	Y	Z
0.2	3%	13%	4%
0.5	8%	10%	10%
0.3	18%	8%	14%

Required:

- a) Compute the covariance between the following sets of assets, commenting on your results in each case:
- X and Y **(3½ Marks)**
 - X and Z **(3½ Marks)**
- b) Compute the correlation coefficient of the following sets of assets, commenting on your results in each case:
- X and Y **(3½ Marks)**
 - X and Z **(3½ Marks)**
- c) Determine which of the two portfolios (XY) or (XZ) is better giving the reason thereof. **(1 Mark)**

QUESTION FIVE

- a) Stock Y's returns depend on only three risk factors i.e. Inflation, Gross Domestic Product (GDP) and the aggregate degree of risk aversion.

The required rate of return on a portfolio with unit sensitivity to each factor and zero-sensitivity to other factors is as follows: Inflation 12%, Gross Domestic Product (GDP) 9%, Degree of risk aversion 4%.

Stock Y has betas of 0.8 with the inflation factor, 1.2 with the Gross Domestic Product (GDP) factor and - 0.4 with risk aversion factor.

The rate of return on riskless government treasury bills is 10% and the market expected rate of return is 16%. The standard deviation of the market return is 5% while the covariance of return for Stock Y and the market is 10%.

Required:

Compute Stock Y's required rate of return using:

- i) Capital Asset Pricing Model (CAPM) **(5 Marks)**
 - ii) Arbitrage Pricing Theory (APT) **(5 Marks)**
- b) As an experienced portfolio manager, analyse five procedural steps you would undertake in the management of a client's investments. **(5 Marks)**

QUESTION SIX

- a) Demonstrate the 'efficient frontier', underpinning criteria for determining which assets are regarded as efficient and/or inefficient, using a diagram and examples. **(6 Marks)**
- b) Differentiate the following sets of Portfolio Management approaches:
- i) 'Active' versus 'Passive' Portfolio Management **(3 Marks)**
 - ii) 'Discretionary' versus 'Non-Discretionary' Portfolio Management **(3 Marks)**
- c) In regard to bond management, explain the term 'duration' and how it is measured. **(3 Marks)**