20

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER

MAIN EXAMINATION

FOR THE DEGREE OF MASTERS IN BUSINESS ADMINSTRATION

COURSE TITLE: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

COURSE TITLE: MBA 836

DATE: THURSDAY,28TH JULY 2022 **TIME:** 2-5PM

INSTRUCTIONS TO CANDIDATES

Attempt QUESTION ONE and any other two questions

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

QUESTION ONE

a) In the context of behavioral finance discuss four informational barriers

(8 marks)

b) The investment committee of Jenru investment ltd used reports from various security analysts to develop inputs for the single index model. The output derived from the single model consists of the following efficient portfolio

PORTFOLIO	EXPECTED RETURN%	STD DEV
A	8	3
B	10	6
C	13	8
D	17	13
E	20	18

i. Assuming that the prevailing risk ratio free is 6%, determine the optimal portfolio (5 marks)

ii. Assuming that the standard deviation of 12% were acceptable, determine the expected portfolio return and demonstrated how matrix investment ltd would finance it.

iii. The investment committee would like to be earn an expected return of 10%, with a standard deviation of 4% using suitable computation explain whether this is possible (2marks)

QUESTION TWO

EQUITY PORTFOLIO	1ST JAN 2019	31ST DEC 2019
	SH	SH
P	225,000	248,000
Q	86,000	75,000
R	152,000	165,000
S	105,000	90,000

REQUIRED

Based on the holding period return(HPR), calculate the following

i. Arithmetic mean (5 marks)

ii. Geometric mean ((5 marks)

iii. Highlight the five steps involved in the portfolio management process (5 marks)

iv. Explain three forms of investment strategies that could be adopted by a portfolio manager in the management of a client portfolio (5 marks)

QUESTION THREE

The following financial date relates to the performance of company x shares against market share index over the last three-year period

Year	Market index %	Returns%
1	8	10
2	10	11
3	12	12

The treasury bill rate has been stable at 6% per annum over the last three years

Required

i. Using the capital asset pricing model(CAPM),determine the expected return for year 4 assuming that the market index returns for the fourth year in forecasted at 14%(6 marks)

ii. Advice a Kenyan fund manager who is planning to use CAPM on its practicability both in Kenya and the other African countries (7 marks)

iii. Propose four investment constants considered by a portfolio manager while developing an investment policy statement (PPS) for a client (7 marks)

QUESTION FOUR

a) Examine three major risks associated with managing a portfolio against a liability structure (6 marks)

b) Titus an active portfolio manager has on an annual basis 5% portfolio return with a standard deviation of 10% and a tracking error of 5%

Required

i. The Sharpe ratio of the portfolio manager

ii. The information ratio of the PM

The study by the mutual fund has revealed the following data in respect of these securities

Security	Standard deviation%	Correlation market index
A	20	0.60
B	18	0.95
C	12	0.75

a) The standard deviation of the market portfolio is observed to be 15%. Calculate the portfolio of equal investment in each security (4 marks)

b) The systematic risk of the portfolio

c) The unsystematic of the portfolio

QUESTION FIVE

The following information relates to five portfolios managed by sarayal mutual fund

portfolio	Expected return	Variance
1	10	0.0256
2	14	0.0484
3	11.20	0.0169
4	16.80	0.0625
5	19.30	0.0289

Additional information

i. The expected return of the market is 13%

ii. The standard deviation of the market return is 16%

iii. Th risk rate return is 6%

Required

a) Using CAPM determine which of the above portfolio are overvalued or under valued

b) Based on the above results advice on investor who wants to sell or buy.