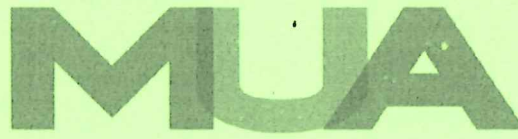


The
Management
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POST GRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

MASTER OF BUSINESS ADMINISTRATION

BFO 501: CORPORATE FINANCE

DATE: 17TH JULY 2017

DURATION: 3 HOURS

MAXIMUM MARKS: 60

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE** is **compulsory**.
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided**

QUESTION ONE

- (a) Briefly explain three practical uses of the capital asset pricing model. **(6 marks)**
- (b) Describe the various types of efficiency identified by efficient market hypothesis **(6 marks)**
- (c) The 15-year annual return for NSE (market portfolio) is 15%, while the average annual return on the Kenyan Government Treasury bills is 8%. The NSE had a standard deviation of 18% over a 15-year period.

You are asked by an investor to evaluate the following three distinct portfolio managers over the 15-year results.

Managers	Average Annual Return	Beta	Portfolio Standard Deviation
Manager R	14.5%	0.95	0.14
Manager S	16.5%	1.07	0.25
Manager T	17.5%	1.30	0.30

- (i) Compute the Treynor value for each of the managers and the market. Briefly comment on the performances **(4 marks)**
- (ii) Compute the Sharpe ratio for each of the managers and the market. Briefly comment on the performances **(4 marks)**
- (iii) Calculate Jensen Alpha of each of the portfolios and comment on the performance **(4 marks)**
- (d) Mike is currently holding a portfolio consisting of shares of four companies quoted on the NSE as follows:

Company	Number of shares held	Beta equity co-efficient	Market price per share	Expected return on equity in the next year %
A	20,000	1.12	65	18
B	30,000	0.89	50	23
C	30,000	0.70	45	11
D	20,000	1.60	80	17

The current market return is 14% per annum and the treasury bills yield is 9% per annum.

Required:

(i) Calculate the risk of Mike's portfolio relative to that of the market. (3 marks)

(ii) Explain whether or not Mike should change the composition of his portfolio.

(3 marks)

QUESTION TWO

X has an investment capital of Kes 1, 000,000. He wishes to invest in two securities, Y and Z in the following proportion; Kes 200, 000 in security Y and Kes 800,000 in security Z. The returns on these two securities depend on the state of the economy as shown below:

State of Economy	Probability	Returns on Security Y	Returns on Security Z
Boom	0.4	18%	24%
Normal	0.5	14%	22%
Recession	0.1	12%	21%

- (i) Compute the expected portfolio return (3 marks)
- (ii) Determine the correlation coefficient between security Y and security Z (6 marks)
- (iii) Calculate the portfolio risk (2 marks)
- (iv) Calculate the reduction in risk due to portfolio diversification (4 marks)

QUESTION THREE

- (a) With the help of a diagram differentiate between systematic and unsystematic risk and show how risk is eliminated in a portfolio (7 marks)
- (b) The investment portfolio of Moody Limited consists of shares in five companies operating in different industries.

Company	Amount Invested (Kes 'million')	Stock beta Coefficient
A Ltd	160	0.5
B Ltd	120	2.0
C Ltd	80	4.0
D Ltd	80	1.0
E Ltd	60	3.0

The risk free rate (R_f) is 8%. The market returns have the following probability distribution for the next period.

Market return %	Probability
10	0.1
12	0.2
13	0.4
16	0.2
17	0.1

Required:

- (i) Compute the expected return from the market (3 marks)
- (ii) Calculate the beta coefficient for the portfolio (5 marks)

QUESTION FOUR

- (a) Explain the three term structure theories used in the study of the shape of the yield curve (9 marks)
- (b) Explain the role played by agency costs in capital structure theory (6 marks)

