KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF

BACHELOR OF COMMERCE

BAC 408: APPLIED INVESTMENTS

DATE: Friday, 2nd December 2016 **TIME:** 2.00 p.m. - 4.00 p.m.

INSTRUCTIONS:

ANSWER ALL QUESTIONS

QUESTION ONE

(a) Briefly explain conceptual differences between SML and CML. (5 marks)

(b) Explain any four types of mutual fund. (4 marks)

(c) Discuss the four systematic factors suggested by Roll and Ross that determine assets riskiness. Explain how these factors affect an assets expected rate of return. (8 marks)

(d) Explain the following terminologies as used in portfolio process.

(i) Selectivity

(ii) Timing

(iii) Diversification (3 marks)

[Total - 20 marks]

QUESTION TWO

An investor has two assets to consider which have the following characteristics.

periods	probability	Asset M	Asset W
1	0.30	24	28
2	0.20	20	18
3	0.15	18	25
4	0.20	22	17
5	??	25	21

Required; Calculate

(a) The expected return for the portfolio MW. Assume a ratio of 1:2

(b) Correlation coefficient of the two assets.

(c) Portfolio risk.

(d) The effect of diversification and comment. (Total - 15 marks)

QUESTION THREE

1) An analyst had the following information from historical data.

State of economy	probability	Return of S	Return of T
Recess	0.2	0.15	-0.25
Normal	0.7	0.55	0.25
Irrational	0.1	-0.15	0.45

Additional information;

The premium is 10% and the risk-free rate is 4%.

(i) What security has the most systematic risk? (2 marks)

(ii) Which one has the most unsystematic risk. (2 marks)

(iii) Which of the stock is riskier? Explain. (2 marks)

2) Stock D has the following statistics; variance = .20, beta 1.2, alpha = 0.2, correlation with the market index = 0.4, and the market variance index = 0.15.

Required

(i) Calculate coefficient of determination for the stock. (3 marks)

(ii) Calculate systematic risk of the stock. (3 marks)

(Total - 12 marks)

QUESTION FOUR

(i) Briefly explain the application of indifference curve in portfolio selection. (4 marks)

(ii) Discuss any four conditions necessary for an efficient market to exist. (4 marks)

(iii) The following information relates to various portfolios in an investment company.

portfolio	Average annual return %	Standard deviation	Correlation with market
1	31.2	27	.81
2	11.8	18	.55
3	8.3	15.2	.38
4	17.5	21.2	.50
5	-9.0	6	.45
6	23.5	19.3	.70
7	12.5	12.3	.49
Market	13.0	12.0	
Treasury bills	8.0		

Required

(i) Rank these portfolios using sharpe's measure and treynor measures. (7 marks)

(ii) Compare the ranking in part (i) and explain the reasons behind the differences if any. (4 marks)

(iii) Identify the portfolios that are mispriced. (4 marks)

(Total - 23 marks)