MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION WITH INFORMATION TECHNOLOGY

CITY CAMPUS – EVENNING

ABA 320: INVESTMENTS AND PORTFOLIO MANAGEMENT

Date: 13th June, 2017

Time: 5.30 - 8.30pm

INSTRUCTIONS:
- Answer Question ONE and any other THREE Questions.
- Question ONE carries 25 marks and the rest 15 marks each
- Show all your workings clearly

QUESTION ONE

As a financial analyst at **Choices Have Consequences Limited** you are conducting an analysis of four alternative investment projects. Each project has a holding period of one year. The estimated rates of return for three alternative states of the economy are shown in the table below:

State of the Economy	Probability of each state occurring	Rate of return if state occurs			
		A %	B %	C %	M %
Recession	0.2	20	16	22	5
Average	0.6	20	21	24	15
Boom	0.2	20	31	-4	35

Required:

(a) Determine the expected rate of return, variance, standard deviation and coefficient of variation for each project; **(8 marks)**

(b) Your boss, the company's financial manager, has asked you to assess the total risk of the four investment alternatives. Also he requested that you apply the mean-variance criterion to determine whether any of the alternative projects can be eliminated. Present a well – reasoned response to him. **(8 marks)**

(c) Respond to the following comments:

(i) There is upside-risk and down-side risk. Standard deviation does not distinguish between them. **(2marks)**

(ii) Risk to me is the probability of loss **(2 marks)**

(iii) Harry Markowitz was just another non-Kenyan **(2 marks)**

(iv) Required rate of return refers to expected rate of return accruing from an investment. **(2 marks)**

QUESTION TWO

a) Elucidate the key steps in investment management process highlighting the relevance of each step in investment analysis. **(7 marks)**

b) You are planning to invest in either of 2 securities X and Y or a combination. You seek the advice of a financial analyst who gives you the following data.

Probability	Return on security X	Return on security Y
0.2	11 %	-3 %
0.2	9	15
0.2	25	2
0.2	7	20
0.2	-2	6

Required:

Calculate the expected return and standard deviation of each of the following portfolios:

(i) 75% X and 25% Y **(5 marks)**

(ii) 50% X and 50% Y **(4 marks)**

(iii) 25% X and 75% Y **(4 marks)**

QUESTION THREE

(a) Explain the theoretical differences between the Sharpe measure and Jensen measure

(4 marks)

(b) The information provided below relates to an investor's portfolio comprising the shares of five companies quoted on the stock exchange.

Company		Beta	Market value of Investment (sh.)	Expected return
A	Ltd.	0.7	1,200,000	14 %
B	Ltd.	0.35	1,400,000	15 %
C	Ltd.	0.63	1,100,000	13 %
D	Ltd.	0.45	1,180,000	10 %
E	Ltd.	0.78	1,120,000	21 %

The market return and risk free rate of return are 14 % and 10 % respectively.

Required:

(i) Determine the portfolio's beta. **(2 marks)**

(ii) Calculate the required rate of return for each of the shares above and state whether it is overvalued or undervalued. **(5 marks)**

(iii) Compute the expected return and the required rate of return of the portfolio **(4 marks)**

QUESTION FOUR

(a) Differentiate between systematic and unsystematic risk. Illustrate this with the help of a diagram. **(4 marks)**

(b) (i) Highlight the major factors that determine the price of a call option.

(3 marks)

(ii) The following information was obtained from a prospective investor who intended to buy a call option:

1. Current market price is Kshs. 100
2. Risk-free rate is 10 %
3. Exercise price is Kshs. 90
4. Time to maturity is 3 months
5. Standard deviation of the returns is 0.3

Required:

Using Black and Scholes option valuation model, determine the value of a call option.

(8 marks)

QUESTION FIVE

a) In relation to the real estate investments theory, explain the term income capitalization approach. **(3 marks)**

b) In reference to efficient market hypothesis, write explanatory notes on the following:

(i) Chartisms **(3 marks)**

(ii) Trendless random walk **(3 marks)**

(iii) Market psychology **(3 marks)**

c) Faulu investments has the following stocks:

Stock	Rt	Rm
A	12.50%	11%
B	11.50%	9.50%
C	14%	7.50%
D	13%	14.50%
E	15.50%	13.50%

Where: Rt = Return for stock i during period t.

Rm= Return for aggregate market during period t.

Required:

Compute the abnormal rates of return for each of the stocks of Faulu investments.

(8 marks)