



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

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

CITY CAMPUS -EVENING

ABA 320: INVESTMENTS AND PORTFOLIO MANAGEMENT

Date: 16th January, 2018

Time: 5:30 - 7.30pm

INSTRUCTIONS:

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



QUESTION ONE

As a financial analyst at **CDF 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 differences between sales comparison approach and income capitalization approach. (6 marks)
- b) In reference to efficient market hypothesis, write explanatory notes on the following:
- (i) Trendless random walk (3 marks)
- (ii) Market psychology (3 marks)

c) Faulu investments has the following stocks:

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

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

R_m = Return for aggregate market during period t .

Required:

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

(8 marks)