CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF PROCUREMENT AND LOGISTICS MANAGEMENT

BPLM 421: INVESTMENT MANAGEMENT

STREAMS: BPLM Y4SI   **TIME: 2 HOURS**

DAY/DATE: MONDAY 10/12/2018   **8.30 AM – 10.30 AM**

INSTRUCTIONS:

Answer Question One and any other Two Questions

QUESTION ONE

(a)   No investment is risk free. In view of this statement, discuss the types of investment risks to which investors are exposed.   [6 marks]

(b)   The effectiveness of investment selection in financial planning requires following a series of steps. Describe the steps involved in investment process.   [5 marks]

(c)   Differentiate between growth funds and balanced funds.   [2 marks]

(d)   Compute the call option by applying black and Scholes model.   [6 marks]

    Exercise price sh 45
    Return on 90 day treasury bill   10%
    Variance on stock returns   6.25%
    Time to expiration   270 days
    Stock price   sh 50

(e)   Consider the following three securities

Probabilities	RX(%)	RY(%)	RZ(%)
0.4	20	15	10
0.2	18	20	14
0.4	22	17	20

Determine the portfolio expected return and portfolio risk for a portfolio consisting of 35% in A, 40% in B and 25% in C. [8 marks]

(f)   Highlight the characteristics of a bond duration.   [3 marks]

QUESTION TWO

(a)   Consider the following four portfolios

Portfolio	Return on portfolio	Variance of the portfolio
A	13%	25%
B	10%	36%
C	11%	49%
D	16%	100%

The market return is 10% with a variance of 25% and the treasury bill rate is 6%.
Required: determine which portfolios are efficient and which ones are not. [5 marks]

(b)   Explain how mutual funds are operated.   [3 marks]

(c)   Differentiate between allocative and information efficiency.   [3 marks]

(d)   The following is the information for three securities

Securities	Average return	Beta	Standard deviation
A	18%	1.3	25%
B	13%	0.8	28%
C	12%	1.0	20%

The standard deviation of the market portfolio is 22%, market return is 12% and the treasury bill rate is 7%. Required evaluate the performance of the investment using Sharpe, Treynor and Jensen measures and comment on their performance. [9 marks]

QUESTION THREE

(a)   A 10 year 12% sh 10,000 bond is currently priced at the market at sh 12,000. The market interest rate is 15%. The bond is redeemable after 7 years. Calculate the duration of the bond.   [8 marks]

(b)   Explain the two functions of capital market efficiency.   [3 marks]

(c)   Discuss the term bond immunization   [2 marks]

(d)   The following are the historical returns for Anita company

Years	Return on Anita company (%)	Return on the market (%)
1	37	15
2	9	13
3	-11	14
4	8	-9
5	11	12
6	4	9

Required: The beta of the company   [7 marks]

QUESTION FOUR

(a)   Using illustrations explain the Markowitz ltd efficient frontier.   [4 marks]

(b)   State the assumptions of modern portfolio theory.   [3 marks]

(c)   Describe the main elements of an investment environment.   [3 marks]

(d)   Two portfolios were constructed one consisting of equity shares and the debentures. The shilling value of equity shares at the time of constructing the portfolio was 120,000 and 80,000 debentures. The investor opts to use constant shilling value plan and fixes a revision point of 10%. The share prices are shown below.

Period	share prices
1	100
2	90
3	80
4	75
5	65

Explain the portfolio revision pattern of the investor.   [10 marks]