CHUKA   **UNIVERSITY**

SUPPLEMENTARY / SPECIAL EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE AWARD OF BACHELOR DEGREE IN

BPLM 421: INVESTMENT MANAGEMENT

STREAMS:

TIME: 2 HOURS

DAY/DATE: WEDNESDAY   18/11/2020   **2.30 P.M - 4.30 P.M.**

INSTRUCTIONS:
▪ Answer question one and any other two questions.

Do not write anything on the question paper

Question One

a) Consider the returns of two securities A and B with their respective probabilities

Probability	$R_A(\%)$	$R_B(\%)$
0.4	15	8
0.15	10	20
0.25	18	25
0.2	12	20

Required: Determine the portfolio risk and portfolio expected return consisting of 60% of A and 40% in B.   (8 marks)

b) A 5 year bond whose face value of sh.200 has a coupon rate of 12%. The market interest rate is 15%. The bond is redeemable at par after 5 years, Calculate the bond's duration
(4 marks)

c) Explain the investment process that can be adopted by a fund manager to ensure maximised returns   (10 marks)

d) Clearly describe the different of mutual funds found around the world   (8 marks)

Question Two

a) Differentiate between investment, speculation and gambling   (6 marks)

b) Louis is considering investing in a bond currently selling for Shs.9500. The bond has four years to maturity, sh. 11,000 face value and 9% coupon rate. The next annual interest payment is due one year from today. The required rate of return is 13%. Calculate the intrinsic value of the bond and state whether Louis should purchase the bond?   (5 marks)

Consider the following four portfolios

Portfolio	Expected return (%)	Standard Deviation (%)
A	15	5
B	12	6
C	10	7
D	16	10

If the risk premium is 4% with a standard deviation of the market is 4% and the treasury bill rate is 6%. Required determine which portfolios are efficient and which ones are inefficient
                                                                        (6 marks)

d) With the aid of a diagram explain the efficient frontier   (3 marks)

Question Three
a) Differentiate between growth funds and balanced funds   (4 marks)

b) Compare the following three portfolios and calculate their performance on the basis of Treynor, Sharpe and Jensen and comment on the results

Portfolio	Expected return	Standard deviation	Beta
A	18%	20%	1.25
B	15%	40%	0.75
C	12%	25%	1.1

The market average return is 15%, the standard deviation of the market is 20%, the treasury bill rate is 8% and the beta of the market is 1   (8 marks)

c) An investor is evaluating three portfolios with the following characteristics:

Portfolio	Portfolio Estimated return %	Porfolio Beta
1	16%	1.2
2	14%	0.8
3	13.5	0.9

The expected return on the market portfolio is 14.5%. The risk-free rate of interest is 4.5%.

Required:
Use the Capital Asset Pricing Model to identify which among the above portfolios are efficient or inefficient.   (5 marks)

d) Give the assumptions that are needed to be made when applying the CAPM.   (3 marks)

Question Four

a) Two portfolios were constructed, one consisting of equity shares and the other consisting of bonds. The market capitalisation of equity shares at the time of constructing the portfolio was sh.60, 000 at a rate of sh.100 per share and that of bonds (defensive portfolio) was sh.40, 000 which represents the investment made. The investor opts to use constant shilling value plan and fixes a revision point of 10%. The share prices show fluctuations at periodical intervals as under:

Period	Share Price Sh.
1	100 (at the time of portfolio construction)
2	95
3	80
4	75

Determine the total portfolio value after revision at the end of period 4.   (8 marks)

b) Differentiate between active revision strategies and passive revision strategies   (2 marks)

c) Beatrice owns a share that is currently selling at sh 50 and has two possible prices at the end of the year i.e sh 75 or sh40. Assume a risk free rate of 5%. Calculate the value of the one year call if the exercise price is sh 55.   (4 marks)

d) Explain the 3 main elements of an investment environment   (6 marks)

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