

THARAKA



UNIVERSITY

COLLEGE

(A Constituent College of Chuka University)

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF COMMERCE

BCOM 435: INVESTMENT AND PORTFOLIO MANAGEMENT

STREAMS: BCOM Y4S2

TIME: 2 HOURS

DAY/DATE: TUESDAY 14/04/2020

8.30 AM – 10.30 AM

INSTRUCTIONS:

Answer Question One and any other Two Questions

QUESTION ONE

- (a) Mama keke has identified two quoted shares which she believes exhibit negative correlation in their possible returns over the next year as follows:

State	Probability	Predicted rate of return	
		A shares	B shares
X	0.3	25%	14%
Y	0.45	22%	18%
Z	0.25	12%	20%

Required:

- (i) Calculate the expected return, variance and standard deviation of each security. [12 marks]
- (ii) Calculate the covariance between the two securities. [3 marks]

- (b) Provide a clear description of the investment process. [5 marks]
- (c) (i) Explain the 3 main elements of an investment environment. [6 marks]
- (ii) Explain two types of risks associated with bonds. [4 marks]

QUESTION TWO

- (a) A 15-year bond with a coupon rate of 7.5% is currently priced at sh. 957. The current yield of the bond is 8% and the par value of the bond is sh. 100

Required:

Calculate the duration of the bond. [10 marks]

- (b) In a logical market, discuss the portfolio management process, highlighting what happens in each stage. [10 marks]

QUESTION THREE

- (a) Consider the following data for a particular sample period.

	Fund A	Market (M)
Average return	35%	28%
Beta	1.2	1.0
Standard deviation	42%	30%
Non-systematic risk	18%	0%

The T-bill rate during the period was 6%

Required:

Calculate and comment on the following performance for portfolio of fund A and the market.

- (i) Sharpe [3 marks]
- (ii) Jensen [3 marks]
- (iii) Treynor [3 marks]
- (iv) M² measure [3 marks]
- (v) Information ratio [3 marks]
- (b) Distinguish between portfolio evaluation and portfolio revision. [5 marks]

QUESTION FOUR

- (a) Explain three types of mutual funds. [6 marks]
- (b) Two portfolios were constructed one consisting of equity shares and debentures. The shilling value of equity shares at the time of constructing the portfolio was ksh. 90,000

and debentures ksh. 60,000. The investor opts to use a constant ratio plan with a ratio of 1.5:1 (ratio of aggressive to defensive investment). The revision point is fixed at 10%. The share prices are as follows:

Period	Share price
1	100
2	90
3	85
4	70
5	65

Required:

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

(c) Highlight any two characteristics of bond duration. [4 marks]
