**CHUKA** 



## **UNIVERSITY**

# SUPPLEMENTARY / SPECIAL EXAMINATIONS FOURTH YEAR EXAMINATION FOR THE AWARD OF BACHELOR OF COMMERCE (FINANCE OPTION) AND COOPERATIVE MANAGEMENT

**BCOM 435: INVESTMENT & PORTFOLIO MANAGEMENT** 

STREAMS: BCOM/BCOP Y4S2

**HOURS** 

**DAY/DATE: MONDAY 16/11/2020** 

TIME: 2

11.30 A.M - 1.30 P.M.

#### **INSTRUCTIONS:**

Answer question ONE and any other TWO questions

### **QUESTION ONE (30 MARKS)**

- (a) Distinguish between systematic and non-systematic risk citing two sources of each (4 marks)
- (b) Discuss the essential features investors consider while selecting investment alternatives.
- (c) Using suitable examples, distinguish between the following security types: Fixed income, Equities and derivatives. (6 marks)
- (d) The following is data on return-risk characteristics of two risky securities X and Y. The standard deviation on security X and Y is 30% and 26% respectively. The correlation of returns between X and Y is -0.5 while that between X and the market portfolio is +0.25. The standard deviation of the market portfolio is estimated to be 6%.
  - (i) The covariance of returns on assset X and Y. (2 marks)
  - (ii) Calculate the proportion of investment in each security that would yield lowest risk assuming that an investor combines security X and Y in a portfolio.(4 marks)
- (iii) Estimate the beta for security X and interprete your result (4 marks) **QUESTION TWO (20 marks)** 
  - (a) Explain the following terms as used in portfolio management
  - (i) Efficient portfolio (2 marks)
  - (ii) Bond duration (2 marks)
  - (iii) Portfolio revision (2 marks)

(b) Consider the following data for a particular sample period

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

The 91-days Treasury-bill rate during the period was 6%. Calculate and comment on the following performance measures of fund A in relation to the market portfolio

(i) Sharpe (ii) Treynor (iii) Jensen's (alpha) (iv) Information ratio

(8 marks)

(c) Explain diagrammatically the investment efficient set for a two risky asset portfolio.

(6 marks)

#### **QUESTION THREE**

(a) Investors in the bond market are generally exposed to price risk and reinvestment risk. Explain (6 marks)

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

Portfolio	Portfolio Estimated return	Portfolio Beta	
	%		
1	10	1.2	
2	14	0.8	
3	13.5	0.9	
4	12.5	0.6	

The expected return on the market portfolio is 14.5%. The risk-free rate of interest is 4.5%. Required: Basing on CAPM, advice on which among the above portfolios are suitable candidates for buying.

(6 marks)

(c) Bond A and B have similar characteristics except the maturity period. Both bonds carry 9% coupon rate with face value of Ksh.10, 000. The YTM is 8%. If the YTM is to rise to 11%, what will be the respective percentage price change in bond A with 5 years to maturity and B with 6 years to maturity? (8 marks)

#### **QUESTION FOUR**

- a. Distinguish between active and passive portfolio revision strategies (6 marks)
- b. Explain the following fund types: Equity fund, Money market fund and balanced fund. (6 marks)
- c. Old Mutual Asset Managers Ltd. manages a balanced fund scheme. The following information is given with regard to the fund on 26th February 2020.

Portfolio composition:

1 ordino composition.		
	Value (Ksh.M)	
Equity shares	400	

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Bonds	300		
	Ks	sh.M	
Cash and cas	sh equivalents	20	
Accrued inc	1	1	
Short-term 1	abilities	10	
Long-term l	abilities	15	
Accrued ma	nagement expenses for the day	1	
Total shares	outstanding	6.6 million	
quired: Calculate th	e Net Asset Value for the fund an	d interpret your answer	(8 marks)