

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**

**TIME: 2 HOURS**

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

**11.30 A.M - 1.30 P.M.**

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**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. (10 marks)
- (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 asset 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 interpret 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:

	Value (Ksh.M)
Equity shares	400
Bonds	300

	Ksh.M
Cash and cash equivalents	20
Accrued income	1
Short-term liabilities	10
Long-term liabilities	15
Accrued management expenses for the day	1
Total shares outstanding	6.6 million

Required: Calculate the Net Asset Value for the fund and interpret your answer (8 marks)

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