CHUKA UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF COMMERCE AND BACHELOR OF COOPERATIVE MANAGEMENT

BCOM 435: INVESTMENT AND PORTFOLIO MANAGEMENT

STREAMS: BCOM/ BCOP Y4S2 **TIME: 2 HOURS**

DAY/DATE: TUESDAY 14/04/2020 **11.30 AM – 1.30 PM**

INSTRUCTIONS:

Answer Question One and any other Two Questions

QUESTION ONE (30 MARKS)

(a) Discuss the essential features investors consider while selecting investment alternatives. [6 marks]

(b) Using suitable examples, distinguish between the following security types: Fixed income, Equities and derivatives. [6 marks]

(c) The following is data on return-risk characteristics of three risky securities P, Q and R.

	P	Q	R	Corr.
Expected return %	25	22	20	
Standard deviation %	30	26	24	
Correlation:				
PQ				-0.5
QR				0.4
PR				0.6
Number of shares	6,000	8,000	10,000	
Market price per share Sh.	42.9	29.2	21.7	

Compute

(i) The expected return and variance of the portfolio comprising securities P, Q and R [8 marks]

(ii) The covariance of returns on asset P and Q and inteprete your result. [4 marks]

(iii) The proportion of investment in each asset that would yield lowest assuming that an investor combines P and Q in a portfolio. [4 marks]

QUESTION TWO (20 MARKS)

(a) Explain the following terms as used in portfolio management.

(i) Efficient portfolio [2 marks]
(ii) Bond immunization [2 marks]
(iii) Portfolio performance evaluation [2 marks]

(b) Over the past 10-year period, the average annual rate of return on the NSE (market portfolio) was 12% and the average annual rate of return on a 364-day T-bill was 7%. As an administrator of a large pension fund, you are indifferent on whether to renew investment contract with each of the three fund managers that are currently offering investment service to the pension fund. You have gathered the following information:

Investment	Average Annual rate of return	Beta of the portfolio	Standard deviation of the portfolio
W	15%	1.25	25%
X	12%	0.75	30%
Y	10%	1.00	20%

The standard deviation and the beta of the market portfolio is 25% and 1.0 respectively.

Required:
Compute the performance of the managers using Sharpe, Treynor and Jensen measures. [8 marks]

(c) An investor holds 10,000 shares in B.O.C Kenya Ltd, a listed company at the NSE. The current dividend per ordinary share of B.O.C Ltd is sh. 2 per annum. The dividends are expected to grow at an above average rate of 20% p.a over the coming 3 years, then at a rate of 10% over the next three years and finally at a rate of 5% p.a to perpetuity. The capitalization rate for the company is 9%. Suppose the current market price of B.O.C Ltd is sh. 109.25, would you recommend a sale or buy decision to the investor? Explain using dividend growth model. [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 Beat
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 is interest is 4.5%

Required:
Basing on a suitable equilibrium model, and by appropriate sketching, 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 9%. If the YTM is to rise to 11%, what will be the respective percentage price change in bond A with 7 years to maturity and B with 10 years to maturity? [8 marks]

QUESTION FOUR

(a) Explain the meaning of a portfolio revision and distinguish between active and passive portfolio revision strategies. [6 marks]

(b) A portfolio manager constructed two portfolios at the end of first quarter of 2019, one consisting of ordinary shares and the other consisting of corporate bonds. The ordinary shares at the time of constructing the portfolio were 1200 shares at a value of sh. 100 per share while the bonds (defensive portfolio) were valued at sh. 80,000. The investor opts to use constant value plan strategy for portfolio revision and fixes a revision point of 10%. The share prices at the end of April, May and June are sh. 90, sh. 85, and sh. 75 respectively. Determine the total portfolio value after revision at the end of June 2019. [6 marks]

(c) Old Mutual Asset Managers Ltd manages an equity mutual fund. The following information is given with regard to the fund on a particular day.

Portfolio composition:

	Values ksh. M
Equity shares	400
Bonds	300

Ksh. M

Cash and cash equivalents	20 million
Accrued income	1
Short-term liabilities	10
Long-term liabilities	15
Accrued expense for the da	1
Total shares outstanding	6.6

Required: Calculate the Net Asset Value for the fund and interpret your answer.

[4 marks]
