

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF BUSINESS ADMINISTRATION

MBAD 833: INVESTMENT FINANCE

STREAMS: MBAD Y2S1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 4/12/2019

2.30 P.M – 4.30 P.M

INSTRUCTIONS

Answer question one and any other three questions

QUESTION ONE (40 MARKS)

- (a) Discuss the essential features investors consider while selecting investment alternatives. [6 marks]
- (b) The fact that not the entire risk of a portfolio can be diversified away, no matter how many securities are included, makes it possible to classify risk two categories systematic and non systematic risk. Discuss two sources of systematic and unsystematic risk. [6 marks]
- (c) Using suitable examples distinguish between the following security types: fixed income, equities and derivatives. [9 marks]
- (d) 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	

- (i) Calculate the risk of the portfolio made up of securities P,Q and R. [6 marks]
- (ii) The proportion of investment in asset P and Q that would yield lowest risk.

[5 marks]

During 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 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 manager	Average annual rate	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 :

Compare the performance of the managers using sharpe, Treynor and Jensen measures.

QUESTION TWO

- (a) Explain the following concepts as used in portfolio management.
 - (i) Efficient portfolio [2 marks]
 - (ii) Short position in community futures [2 marks]
 - (iii) Portfolio performance evaluation [2 marks]
- (b) The shares of home Africa limited are currently selling ksh at 300 each at the stock exchange. The exchange price for a six month call option on the share is ksh 250. The current annualized market interest rate on T-bills is 15% and the variance of the company's share has been 12% .

Required :

- (i) Use black Scholes model to calculate the value of a call option. [6 marks]
- (ii) State the factors that would influence the value of the call option. [5 marks]
- (c) An investor holds 10,000 shares in Marshalls (E.A) ltd a listed company at the NSE. The current dividend per equity share of Marshalls ltd is ksh 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%.

Required :

- (i) Suppose the current market price of Marshalls ltd is ksh 109.25, would you recommend a sale or buy decision to the investor? Explain using dividend growth model. [6 marks]
- (ii) Calculate the current value of the investor’s shareholding in Marshalls. [2 marks]

QUESTION THREE

- (a) In relation to invest in securities, explain the distinction between fundamental analysis and technical analysis. [6 marks]
- (b) Investors in the bond market are generally exposed to price risk and reinvestment risk. Explain. [4 marks]
- (c) 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 a suitable equilibrium model and by appropriate sketching advice on which among the above porfolios are suitable candidates for buying. [10 marks]

QUESTION FOUR

- (a) Explain the meaning of a portfolio revision and distinguish between active and passive portfolio revision strategies. [6 marks]
- (b) Distinguish between European option and American call option. [4 marks]
- (c) A portfolio manager constructed two portfolio at the end of July 2018, 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 ksh 100 share while the bonds (defensive portfolio) were valued at ksh 80,000. The investor opts to use constant value plan strategy for portfolio revision and fixes a revision point of 10%. At the time of portfolio construction, the market price per share was ksh 100. The share prices show fluctuations at the end of the month as shown under:

Month	Market price per share ksh
August	90
September	85
October	75
November	80
December	95

Determine the total portfolio value after revision at the end of December. [10 marks]

QUESTION FIVE

- (a) In July 2019, the Nairobi securities exchange launched financial derivatives market to trade in futures contracts. Explain what futures are and outline the benefits that investors stand to gain from the futures market? [8 marks]
- (b) Write short notes on the following futures investment concepts;
 - (i) Long position [2 marks]
 - (ii) Spot price [2 marks]
 - (iii) Variation margin [2 marks]
- (c) A financial analyst is studying the bond market products at the NSE and comes across two bonds A and B. The face value on each bond is ksh 1,000 and both are currently yielding 6%. Bond A is currently selling for ksh 878.50 on the bond market with 8% coupon rate. The next annual interest payment is due one year from today. Bond B is currently selling at ksh 975.80 and has coupon rate of 7%. The approximate discount factor for investments of similar risk is 10%.
 - (i) Calculate the intrinsic value for each bond and advice on the suitability of the bonds for purchase consideration. [3 marks]

- (ii) What conclusion can you make regarding size of coupon payments and bond duration? Show relevant computations. [3 marks]
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