

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF MASTER OF BUSINESS ADMINISTRATION

MBAD 833: INVESTMENT FINANCE

STREAMS: MBAD (Y2S1)

TIME: 3 HOURS

DAY/DATE: TUESDAY 06/04/2021

2.30 P.M. – 5.30 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 in two categories – Systematic and Non-systematic risk. Discuss two sources of systematic and unsystematic risk.

[6 marks]

(b) Using suitable examples, distinguish between the following security types: Fixed income, equities and derivatives

[9 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	
Correction:				
PQ				-0.5
QR				0.4
PR				0.6

MBAD 833

An investor is contemplating investing his wealth in a portfolio of two assets which will be weighted equally. Which of the combination PQ, PR and RQ yield lowest risk?

[10 marks]

(d) 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 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 manager	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: Compare the performance of the managers using Sharpe, Treynor and Jensen measures [9 marks]

QUESTION TWO

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

- (i) Efficient portfolio [2 marks]
- (ii) Minimum variance portfolio [2 marks]
- (iii) Portfolio performance evaluation [2 marks]

(b) 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? [6 marks]

(c) SIB investment bankers will use combined earnings and dividend model to determine the value of Prime Time ltd. estimated earnings per share (EPS) for Prime Time ltd for the next 5 years are:

Year	EPS Sh.
2015	4.00
2016	4.40

MBAD 833

2017	4.84
2018	5.32
2019	5.85

Prime Ltd has a policy of paying out 35% of earnings in individuals. Prime Ltd beta is 1.05 and has equity risk premium of 6.4%. At the time of analysis, long term interest rates had 5.3% yield. It is anticipated that the stock will trade at a P/E OF 17 times 2019 earnings for the purpose of estimating the stock price at that point in time. What is the present value of the stock based on future expectations [8 marks]

QUESTION THREE

- (a) Explain the assumption of non-satiation and assumption of risk aversion as they apply to portfolio selection. [6 marks]
- (b) Investors in the bond market are generally exposed to price risk and reinvestment risk. Explain [4 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 sh. 1, 000 and both bonds are currently yielding 6%. Bond A is currently selling for shs. 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 shs.975.80 and has a coupon rate of 7%. The appropriate 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.
- (ii) What conclusion can you make regarding size of coupon payments and bond duration? Show relevant computations [10 marks]

QUESTION FOUR

- (a) Explain the assumptions underlying the CAPM [4 marks]
- (b) Explain the meaning of a portfolio revision and distinguish between active and passive portfolio revision strategies [6 marks]
- (c) A portfolio manager constructed two portfolios at the end of July 2018, one consisting of ordinary shares and the other consisting of corporate bonds. The ordinary shares at the time 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

MBAD 833

portfolio revision and fixes a revision point of 10%. At the time of portfolio construction, the market price per share was sh. 100. The share prices show fluctuations at the end of the month as shown under:

Month	Market price per share sh.
August	90
September	85
October	75

Determine the total portfolio value after revision at the end of October 2018 [10 marks]

QUESTION FIVE

(a) Write notes on the following futures investment concepts

- (i) Long position [2 marks]
- (ii) Spot price [2 marks]
- (iii) Variation margin [2 marks]

(b) In late June 2019, Linda purchased two August silver futures contracts. Each contract size is 5,000 ounces of silver and the futures price on the date of purchase was USD 18.62 per ounce. The initial margin required was USD 6,000 and a maintenance margin of USD 4,500. You are given the following price history for the August silver futures:

Day	Futures Price (USD)
29 June 2019	18.62
30 June 2019	18.69
01 July 2019	18.03
02 July 2019	17.72
06 July 2019	18.00
07 July 2019	17.70
08 July 2019	17.60

Required: Determine the balance on Linda's account at the end of 8th July 2019

[8 marks]

(d) An investor is evaluating three portfolios with the following characteristics: portfolio 1 has estimated return 10% and a beta of 1.2 portfolio 2 has estimated return of 12.5% and a beta of 0.6. The equity risk premium is 10% and the interest rate on 91 days Treasury bill is 4.5%. Basing on a suitable equilibrium model, and by appropriate sketching, advice on which among the above

portfolios are suitable candidates for buying.

[6 marks]
