**UNIVERSITY EXAMINATIONS: 2013/2014**

**EXAMINATION FOR THE MASTERS OF SCIENCE (MSC) IN COMMERCE**

**MSF 508 PORTFOLIO MANAGEMENT (EVENING)**

**DATE: APRIL, 2014** **TIME: 3 HOURS**

**INSTRUCTIONS: Answer Question One and Any Other Three Questions**

## QUESTION ONE (31 MARKS)

a) Discuss the Investment management process (10 Marks)

b) ABC Ltd intends to invest Kshs 2,400,000 in a portfolio comprising two securities. The following information relates to the securities under consideration:

| Security | Return (%) | standard deviation (%) | weight |
|---|---|---|---|
| A | 12 | 3.2 | 0.25 |
| B | 16 | 1.4 | 0.33 |
| C | 14 | 2.6 | 0.27 |
| D | 10 | 1.7 | 0.15 |

The covariance between each of the possible security combinations in the portfolio is given below:

| Portfolio | Covariance |
|---|---|
| A,B | 2.4 |
| A,C | -1.2 |
| A,D | 3.9 |
| B,C | -1.5 |
| B,D | 2.0 |
| C,D | 1.6 |

Assume that the securities are not divisible and each portfolio comprises two different securities.

i) Calculate the standard deviation and coefficient of variation of each possible portfolio. (12 Marks)

ii) Advice the company on which portfolio to invest its funds based on your results in (i) above. (3 Marks)

c) Discuss the following strategies of investing in stocks:

i) Business cycle strategy (2 Marks)

ii) Market timing strategy (2 Marks)

iii) Value screening strategy (2 Marks)

## QUESTION TWO (23 MARKS)

a) Present Four examples of blue chip stocks in your country's stock exchange market. Explain why you categorized them as blue chip companies. (4 Marks)

b) There are various types of bonds in the financial markets. An investor must understand their differences and features before deciding what bonds would be suitable for his or her investment portfolio. Differentiate the following types of bonds:

i) Zero coupon bonds and floating rate bonds (4 Marks)

ii) Secured bonds and unsecured bonds (4 Marks)

c) A bond rating is a grade given to a bond indicating its credit quality. What is the importance of bond rating while making investment decisions? (3 Marks)

d) Distinguish between Active and passive bond management strategies (4 Marks)

e) A Bond with a face value of Ksh 1000, 2 years to maturity and 10% coupon rate, makes semiannual coupon payments and provides 8% yield to maturity.

i) Calculate the price of the bond (2 Marks)

ii) If the yield to maturity increased to 9%, what would be the price of the bond? How would this change in the yield to maturity influence bond price? (2 Marks)

## QUESTION THREE (23 MARKS)

The average return of the market portfolio is 14.7% and the average return of a treasury bill is 8.4%. The Manager of Superior investor's ltd has gathered the following data on three stock portfolios:

| **Stock Portfolio** | **A** | **B** | **C** |
|---|---|---|---|
| Expected return (%) | 12.6 | 16.8 | 18.9 |
| Beta of the portfolio | 0.95 | 1.10 | 1.26 |
| Variance of the portfolio return | 3.61 | 5.29 | 5.76 |

The variance of the returns of the market portfolio is 4.41%%.

**Required**

(a) Evaluate the performance of each portfolio using:

(i) Treynor's portfolio measure (6 Marks)

(ii) Sharpe's portfolio measure (6 Marks)

(iii) Jensen's portfolio measure (6 Marks)

(b) Rank the performance of the portfolios and comment on their performance in comparison with the performance of the market portfolio (5 Marks)

## QUESTION FOUR (23 MARKS)

a) The asset allocation that works best for an investor depends largely on time horizon and his ability to tolerate risk. Discuss this statement (6 Marks)

b) Using relevant examples, Describe the following portfolio diversification levels:

i) Diversification between asset categories (4 Marks)

ii) Diversification within asset categories (4 Marks)

c) i) State and explain three ways of rebalancing a portfolio (6 Marks)

ii) When do we consider rebalancing a portfolio (3 Marks)

## QUESTION FIVE (23 MARKS)

a) Financial ratio analysis is an important tool in investing analysis and it is a prerequisite for a successful investing. Financial ratio analysis provides the clearest, easiest and most logical set of indicators for a securities market investor. Explain the importance of the following financial ratios while making investment decisions:

i) Net profit margin ratio (4 Marks)

ii) Current ratio (4 Marks)

iii) Debt- Equity ratio (4 Marks)

iv) Dividend yield (4 Marks)

v) Earnings per share (4 Marks)

b) Outline three limitations of financial ratio analysis (3 Marks)

## QUESTION SIX (23 MARKS)

a) The rates of return of stock A and the market portfolio for 15 periods are given below:

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stock A (%) | 10 | 15 | 18 | 14 | 16 | 16 | 18 | 4 | -9 | 14 | 15 | 14 | 6 | 7 | -8 |
| Market portfolio (%) | 12 | 14 | 13 | 10 | 9 | 13 | 14 | 7 | 1 | 12 | -11 | 16 | 8 | 7 | 10 |

**Required**: Estimate the beta factor for stock A (17 Marks)

b) State and explain three ways of managing portfolio risk (6 Marks)