

LAIKIPIA



UNIVERSITY

# UNIVERSITY EXAMINATIONS

2<sup>ND</sup> SEMESTER 2023/2024 ACADEMIC YEAR

## EXAMINATION FOR MASTERS OF BUSINESS ADMINISTRATION

### MBAD 732: INVESTMENT FINANCE

**STREAM:** MBA

**TIME:** 3 HRS

**DAY:** TUESDAY [9.00-12.00 NOON]

**DATE:** 26/03/2024

**THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES**

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Answer question one and any other two questions

**QUESTION ONE**

- a). What assumptions must be made in deriving the Capital Asset Pricing Model (CAPM)? (5marks)
- b). The risk free rate is 10% and the expected return on the market portfolio is 15%. The expected returns for 4 securities are listed below together with their expected betas

| Security | Expected Return | Expected Beta |
|----------|-----------------|---------------|
| A        | 17.0%           | 1.3           |
| B        | 14.5%           | 0.8           |
| C        | 15.5%           | 1.1           |
| D        | 18.0%           | 1.7           |

**Required:**

- i). On the basis of these expectations, which securities are overvalued? Which are undervalued? (4marks)
- ii). If the risk-free rate were to rise to 12% and the expected return on the market portfolio rose to 16%, which securities would be overvalued? Which would be under-valued? (Assume the expected returns and the betas remain the same) (8marks)
- c). The following information relates to the forecast returns of securities A and B and their probabilities during the financial year ended 31 December 2023.

| Probability | Security A | Security B |
|-------------|------------|------------|
| 0.2         | 10%        | 8%         |
| 0.1         | 12%        | 10%        |
| 0.35        | 8%         | 7%         |
| 0.05        | 15%        | 12%        |
| 0.15        | 14%        | 11%        |
| 0.15        | 9%         | 8%         |

**Required:**

The expected return and standard deviation on securities A and B (8 marks)

- d). Discuss five assumptions of the Modern portfolio theory (MPT) (5marks)



**QUESTION TWO**

- a). Distinguish between  
 (i) Primary and Secondary securities market. **(2marks)**  
 ii). Capital markets and money markets **(3 marks)**
- b). The investment portfolio of Manu Limited consists of shares in five companies operating in different industries.

| Company | Amount Invested<br>(Sh. million) | Stock beta<br>Coefficient |
|---------|----------------------------------|---------------------------|
| A Ltd.  | 160                              | 0.5                       |
| B Ltd.  | 120                              | 2.0                       |
| C Ltd.  | 80                               | 4.0                       |
| D Ltd.  | 80                               | 1.0                       |
| E Ltd.  | 60                               | 3.0                       |

The risk free rate ( $R_f$ ) is 8%. The market returns have the following probability distribution for the next period.

| Market return % | Probability |
|-----------------|-------------|
| 10              | 0.1         |
| 12              | 0.2         |
| 13              | 0.4         |
| 16              | 0.2         |
| 17              | 0.1         |

**Required:**

- i). Compute the expected return from the market ( $R_m$ ). **(4 marks)**  
 ii). Calculate the beta coefficient for the portfolio ( $\beta_p$ ). **(6 marks)**

**QUESTION THREE**

- a). Discuss the role of Capital Markets Authority (CMA) in the development of capital markets in Kenya **(8marks)**
- b). An investor is considering investing in securities of three companies X, Y and Z Ltd, he has approached you for advice concerning the choice of investment opportunities available but is worried about the risks involved in investment. Clearly explain to this investor the causes of risks in investment and advise him on how to mitigate these risks. **(12 marks)**



**QUESTION FOUR**

Mr. Jackson Mwaniki has a capital of Sh.1, 000,000 which he wishes to invest in three sectors of the economy; agriculture, service and manufacturing. The funds will be allocated as follows:

| Sector        | Amount invested |
|---------------|-----------------|
|               | <b>Sh.</b>      |
| Agriculture   | 400,000         |
| Service       | 200,000         |
| Manufacturing | 400,000         |

Details on the possible future economic states, their probabilities of occurrence and the expected return for each of the sectors are presented below

| Possible Future Economic state | Probability of Occurrence | Expected return for each sector (%) |         |               |
|--------------------------------|---------------------------|-------------------------------------|---------|---------------|
|                                |                           | Agriculture                         | Service | Manufacturing |
| Recession                      | 0.1                       | 16                                  | 14      | 3             |
| Average                        | 0.4                       | 14                                  | 19      | 5             |
| Boom                           | 0.5                       | 20                                  | 22      | 6             |

**Required:**

Determine the risk associated with the investment in each of the three sectors above. **(6 marks)**

b) Investment is well- grounded and carefully planned speculation. Discuss **(9marks)**

