



## TECHNICAL UNIVERSITY OF MOMBASA

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SCHOOL OF BUSINESS  
DEPARTMENT OF ACCOUNTING & FINANCE  
**UNIVERSITY EXAMINATION FOR:**  
MPSM  
BPC5203: SUPPLY CHAIN FINANCIAL MANAGEMENT  
END OF SEMESTER EXAMINATIONS  
**SERIES: AUGUST 2024**  
**TIME:3HOURS**

### **Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other **THREE** questions.

**Do not write on the question paper.**

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### **Question ONE**

- a) ABC Ltd. is considering three possible capital projects for next year. Each project has a 1year life, and project returns depend on next year's state of the economy. The estimated rates of return are shown below.

| State of The<br>Economy | Probability<br>of Occurrence | Rate of Return |    |     |
|-------------------------|------------------------------|----------------|----|-----|
|                         |                              | A              | B  | C   |
| Recession               | 0.25                         | 10%            | 9% | 14% |
| Average                 | 0.50                         | 14             | 13 | 12  |
| BOOM                    | 0.25                         | 16             | 18 | 10  |

#### **Required:**

Find each project expected rate of return, variance, standard deviation and coefficient of variation. (12marks)

- (b) The concepts of profit maximization and wealth maximization have been touted as the main objectives of a business entity. Briefly differentiate the two concepts. (8 marks)

- c) "The finance manager spends most of his time making managerial finance decisions as opposed to routine functions". Discuss. (10marks)

- d) There are different dividend policies that influence how much a firm should pay as dividends. Examine these policies. (10marks)

### **Question TWO**

- (a) The Arbitrage Pricing Theory (APT) and the Capital Asset Pricing Model (CAPM) have received much attention from practitioners and academicians for use in asset pricing and valuation

**Required:**

Explain the conceptual difference between the Arbitrage Pricing Theory (APT) and Capital Asset Pricing Model (CAPM). (10 marks)

- (b) The following are the historical returns for the Anita Computer Company Ltd

| Year | Anita Computer Company Ltd | General Index |
|------|----------------------------|---------------|
| 1    | 37                         | 15            |
| 2    | 9                          | 13            |
| 3    | -11                        | 14            |
| 4    | 8                          | -9            |
| 5    | 11                         | 12            |
| 6    | 4                          | 9             |

**Required:**

- (i) Compute the correlation coefficient between Anita Computer Company Ltd. And the general index. (8 marks)
- (ii) Compute the beta for the Anita Computer Company Ltd. (2 marks)

**Question THREE**

- a) A company is considering the following investment projects

| Cash flows<br>in kshs. |                |                |                |                |
|------------------------|----------------|----------------|----------------|----------------|
| Projects               | C <sub>0</sub> | C <sub>1</sub> | C <sub>2</sub> | C <sub>3</sub> |
| A                      | -10,000        | +10,000        |                |                |
| B                      | -10,000        | +7,500         | +7,500         |                |
| C                      | -10,000        | +2,000         | +4,000         | +12,000        |
| D                      | -10,000        | +10,000        | +3,000         | +3,000         |

**Required**

Compute for each project

- i) Payback (5marks)
- ii) ARR (5marks)
- iii) IRR (5marks)
- iv) NPV (5marks)

**Question FOUR**

- a) Examine any four dividend theories (12marks)
- b) Consider a firm with the following structure

| Source            | Amount | After tax cost |
|-------------------|--------|----------------|
| Ordinary shares   | 80,000 | 15%            |
| Preference shares | 20,000 | 12%            |

|      |        |     |
|------|--------|-----|
| Debt | 50,000 | 10% |
|------|--------|-----|

Required:

- i) Compute its WACC. (6marks)
- ii) Distinguish between WACC and WMCC (2marks)

#### Question FIVE

(a) Briefly explain any five factors that may influence the capital structure used by a company. (10 marks)

(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 beta.

| 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? (5 marks)
- 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. (5 marks)