



OFFICE OF THE DEPUTY VICE-CHACELLOR
ACADEMICS, RESEARCH AND STUDENTS' AFFAIRS

UNIVERSITY EXAMINATIONS

2025/2026 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER MAIN/
REGULAR EXAMINATION
FOR THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION

COURSE CODE: MBA 804

COURSE TITLE: QUANTITATIVE ANALYSIS IN BUSINESS MANAGEMENT

DATE:

TIME: 3 hrs

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 5 PRINTED PAGES

PLEASE TURN OVER

MAIN/ REGULAR EXAM

MBA 804: QUANTITATIVE ANALYSIS IN BUSINESS MANAGEMENT

STREAM: MBA

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES

- Answer **ANY THREE** questions
- Each question carries 20 marks
- Show all your working clearly
- Marks are awarded for method even if the final answer is incorrect
- Statistical tables are provided where necessary

QUESTION ONE: (20 MARKS)

Scenario: You are the Chief Strategy Officer at Naivas Supermarkets, Kenya's leading retail chain. The company is evaluating expansion into two new regions: Kisumu (Region A) and Eldoret (Region B). Your team has collected the following data over a 12-month period:

Region A (Kisumu) - Monthly Revenue (KSh Millions):

12.5, 14.2, 13.8, 15.6, 14.9, 16.2, 15.1, 14.7, 16.8, 15.4, 17.2, 16.5

Region B (Eldoret) - Monthly Revenue (KSh Millions):

18.2, 12.8, 19.5, 11.4, 20.1, 13.2, 18.8, 12.6, 19.3, 13.8, 20.5, 12.9

Additional Information:

- Initial investment required for each region: KSh 50 million
- Company's risk tolerance: Coefficient of Variation (CV) should not exceed 20%
- Target minimum monthly revenue: KSh 14 million
- Corporate benchmark return: $15\% \pm 3\%$

Required:

- a) Calculate the mean and standard deviation for both regions. **(4 marks)**
- b) Determine the Coefficient of Variation (CV) for each region and interpret which region shows more consistent performance. **(4 marks)**
- c) Calculate the median for both regions and explain why there's a significant difference between mean and median in Region B. What does this indicate about the revenue distribution? **(4 marks)**