



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT
UNIVERSITY EXAMINATION FOR:
DEGREE IN BACHELOR OF ARCHITECTURE
EAR 4504: MEASUREMENTS & SPECIFICATIONS
END OF SEMESTER EXAMINATION
YEAR FIVE SEMESTER ONE
SERIES: NOVEMBER 2025
TIME: 2 HOURS
DATE: NOVEMBER, 2025

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 TWO questions.

Do not write on the question paper.

QUESTION ONE

- (a) Highlight your understanding of the term estimating and costing in construction projects (5 marks)
- (b) Discuss why estimating and costing is an important requirement in construction projects (10 marks)
- (c) Discuss the procedure and methods adopted in estimating and costing of projects (10 marks)
- (d) What kind of data is required to prepare an estimate for a building project. (5 marks)

QUESTION TWO

Discuss the importance of specifications in the construction projects documentation process (20 marks)

QUESTION THREE

The plinth area and plinth area rate of a residential building are 100 sqm and Kshs 5,000/= respectively. Determine the **Total Cost of Building** assuming suitable provisions (20 marks)

QUESTION FOUR

- (a) Discuss the different methods adopted in preparation of an approximate estimate for a construction project (10 marks)
- (b) Highlight and explain briefly the factors to be considered while preparing a detailed estimate (10 marks)

QUESTION FIVE

- (a) Illustrate the process of measurement and bill of quantities preparation for simple building facility (10marks)
- (b) Adoption of a standard method of measurement is a key requirement for the Quantity Surveyor. Explain the need for the same and identify some of the most commonly used methods of measurement in the local construction industry.

(10marks)