



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL

UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN
CIVIL ENGINEERING**

ENG/OS/CET/CC/06/6/A, CON/05/BUT/CR/11/6: MEASUREMENTS FOR
CIVIL ENGINEERING WORKS

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer Question one and any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (40 marks)

Take off for the substructure workers shown in drawing no.01. up to damp proof level. Use SMM. (40 marks)

SECTION TWO: ANSWER ANY TWO QUESTIONS

QUESTION TWO

- a. Highlight the functions of the following quantity surveyor(s) (10 marks)
 - i. Contractor Quantity surveyor
 - ii. Client quantity surveyor
- b. Explain the following terms as used in surveying
 - i. Valuation
 - ii. Variation
 - iii. Deemed to be included (6 marks)
- c. Draw dimension paper stating the function of each part (6 marks)
- d. Using a well-illustrated sketches differentiate between prime cost and provisional sum. (8 marks)

QUESTION THREE

- a) Using illustrations describe the following terms
 - i. Grouping of items
 - ii. Grouping of description
 - iii. Stroking
 - iv. Dotting on
 - v. NIL (15 marks)
- b) Describe the procedure of preparing a bill of quantities (7 marks)
- c) Outline the functions of bill of quantities (8 marks)

QUESTION FOUR

- a) Explain four essentials of a valid contract (8 marks)
- b) Differentiate between tendering and contracts (4 marks)
- c) Outline the procedure/steps followed during tendering (6 marks)
- d) Discuss the following types of contractors
 - i) Lump sum contract
 - ii) Cost plus fix fee contract (4 marks)
- e) Describe any four contract document. (8 marks)