



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ENGINEERING AND TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2021/2022 ACADEMIC YEAR

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR, DIPLOMA IN CIVIL
ENGINEERING**

SEB 1316: MEASUREMENT OF CIVIL ENGINEERING WORKS

DURATION: 2 HOURS

DATE:

TIME:

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 (30 MARKS)

- a) Define the following terms as used in measurement
- i) Valuation
 - ii) Variation
 - iii) Extra over item (6marks)
- b) Differentiate between Standard Method of Measurement and Civil Engineering Standard Method of Measurement. (6 marks)
- c) Differentiate between prime cost and provisional sum using appropriate examples. (6 marks)
- d) Explain any four contract documents that are handed over to contractor before construction work. (8 marks)
- e) Define the term contract and state any four essentials of a contract. (6 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

2. Take off all quantities for the underground tank shown on drawing No. 1. (20 marks)

QUESTION THREE (20 MARKS)

3. a) Prepare an abstract paper for the question number two above. (10 marks)
- b) Prepare a bill of quantity for the question number two above. (10 marks)

QUESTION FOUR (20 MARKS)

4. Mr. Kamau a well known contractor in Murang'a town has been running construction works at Maragua. The following is the breakdown of his monthly pay that he is entitled for a period of six months.

<u>Month</u>	<u>Ksh.</u>
January	1,200,000
February	1,500,000
March	2,100,000
April	1,400,000
May	1,950,000
June	1,840,000

- a) Using the data above illustrate the valuation, certification and monthly payment chart for this period. (6 marks)
- b) State and explain the three certificates that Mr. Kamau is entitled to. (6 marks)
- c) Prepare a monthly pay breakdown for this period including defect liability period. (8marks)