



# MACHAKOS UNIVERSITY

University Examinations for 2021/2022

**SCHOOL OF ENGINEERING AND TECHNOLOGY**  
**BUILDING AND CIVIL ENGINEERING DEPARTMENT**  
**FIRST SEMESTER FIRST YEAR EXAMINATION FOR**  
**DIPLOMA IN BUILDING AND CIVIL**  
**GEOTECHNOLOGY 1**

**DATE: 29/11/2021**

**TIME: 8:30 – 11:30 AM**

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**INSTRUCTIONS:**

- *This Examination contains FIVE questions*
- *Attempt all questions*

1. Define the following the terms.
  - a. Mineralogy
  - b. mineral (4 marks)
2. State and briefly explain five rock forming minerals. (10 marks)
3. Name and briefly explain four physical properties of minerals. (12 marks)
4.
  - a) Define site investigation. (2 marks)
  - b) Discuss purposes of site investigation. (12 marks)
  - c) Name and explain the stages of site investigation. (12 marks)
  - d) Discuss the term reconnaissance survey as used in site investigation (10 marks)
5. Explain the mode of formation of the following types of rocks
  - a) Igneous rocks
  - b) Metamorphic rocks (8 marks)