



MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST YEAR SEMESTER TWO EXAMINATION FOR
DIPLOMA IN CIVIL ENGINEERING MODULE 1 TVET

2707/102/GT: GEOTECHNOLOGY 1

DATE: 18/4/2019

TIME: 2:30 – 5:30 PM

INSTRUCTIONS

Attempt all the questions

1. a) Define the term mineral (2 marks)
b) State and explain 6 physical properties of minerals (18 marks)
2. a) Discuss three types of igneous structures (9 marks)
b) Explain the formation of the following rocks :-
 - i) intrusive
 - ii) metamorphic (6 marks)
- c) Describe two textures of sedimentary rock (5 marks)
3. a) Explain 3 types of metamorphic agent (9 marks)
b) Outline the formation of sedimentary rocks (8 marks)
c) State 3 igneous texture (3 marks)
4. a) State 4 objectives of site investigation (8 marks)
b) Outline stages involved in site investigation (12 marks)
5. a) Explain three phases of soil (9 marks)
b) Outline the test carried out to determine moisture content on a sample of soil (8 marks)
c) Explain the term optimum moisture content (3 marks)