

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2015/2016**

FIRST YEAR SECOND SEMESTER EXAMINATION

FOR DIPLOMA IN

CIVIL ENGINEERING

**ECV 2155: ENGINEERING GEOLOGY**

**DATE: APRIL 2016 TIME: 1 ½ HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Define the following terms:
2. Engineering Geology (1 ½ marks)
3. Geology (1 ½ marks)
4. Detrology (1 ½ marks)
5. Minerology (1 ½ marks)
6. State any four natural hazards relevant to geological studies. (4 marks)
7. State the age surface area and diameter of the earth. (2 marks)
8. State the eight most abundant elements in rocks. (4 marks)
9. Briefly describe the following terms as applied in physical mineralogy
10. Specific gravity (1 mark)
11. Cleavage (1 mark)
12. Fracture (1 mark)
13. Luster (1 mark)
14. State five factors that can affect weathering (5 marks)
15. Describe an earthquake and name three causes. (5 marks)

**QUESTION TWO (15 MARKS)**

1. What is the origin of the various rock types? Give an example of each type (10 marks)
2. Define a mineral and explain how minerals are grouped. (5 marks)

**QUESTION THREE (15 MARKS)**

1. Discuss all the processes of chemical weathering (10 marks)
2. Discuss any two processes of mechanical (physical) weathering. (5 marks)

**QUESTION FOUR (15 MARKS)**

1. Differentiate between dip and strike in folded strata. (4 marks)
2. Outline the general morphology of a fault and differentiate between a normal and reserve fault. (6 marks)
3. Give a brief description of the rock cycle. (5 marks)