



MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING
SECOND YEAR SECOND SEMESTER EXAMINATION FOR
DIPLOMA IN CIVIL ENGINEERING
BCECD215 ENGINEERING GEOLOGY

DATE:

TIME:

INSTRUCTIONS

Answer question **ONE** and any other **Two** questions

1.
 - a) Define the following terms: -
 - i) palaeontology (4 marks)
 - ii) stratigraphy (4 marks)
 - b) Explain Three agents of metamorphism (9 marks)
 - c) State and explain 4 physical properties of a mineral (8 marks)
 - d) Discuss how the following subjects are related to geology: -
 - i) mathematic
 - ii) chemistry
 - iii) biology (6 marks)
 - e) State 6 uses of a dam (3 marks)
2.
 - a) Explain six application of geology in construction industries (12 marks)
 - b) State six importance of faulting (6 marks)
 - c) Explain three igneous structures (6 marks)

3.
 - a) With sketches, describe three types of folding (9 marks)
 - b) Explain four importance of folding (8 marks)
 - c) State 3 types of lining used in tunnels (3 marks)
4.
 - a) Describe with sketches the methods of tunnel construction. (12 marks)
 - b) Explain two advantages of constructing tunnel using open cut method (4 marks)
 - c) State 4 uses of tunnel (4 marks)
5.
 - a) Explain 5 physical properties of sedimentary rocks (10 marks)
 - b) Describe any two types of sedimentary rocks (4 marks)
 - c) Discuss chemical weathering and biological weathering (6 marks)