



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT

UNIVERSITY EXAMINATION FOR:

BACHELOR OF ARCHITECTURAL STUDIES/BACHELOR OF
ARCHITECTURE

EAR 4103: GEOLOGY AND CLIMATOLOGY

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER2017

TIME:2HOURS

DATE:Pick DateSep2018

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attemptquestion ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question one

(30Marks)

- a) Discuss the types of Pollutants. (8marks)
- b) List the agents of Metamorphism and explain the processes that take place during metamorphism. (8marks)
- c) Differentiate between;
 - i) Weather and Climate
 - ii) Hardness and Tenacity
 - iii) Micro-climate and Macro-climate
 - iv) Core and Mantle
 - v) Rock and Soil (10marks)
- d) Define Pollution and name the different types. (4marks)

Question Two. (20Marks)

- a) Briefly discuss the different Climatic zones. (10marks)
- b) Explain the factors that affect igneous rock textures. (10marks)

Question Three. (20Marks)

- a) Discuss the four (4) elements of Air movement. Use illustrations. (12marks)
- b) Giving examples, briefly discuss four agents of erosion and deposition. (8marks)

Question Four. (20marks)

- a) Outline the steps for climate consideration in the design and architecture of a building. (10marks)
- b) Describe the processes of sedimentary rock formation. (8marks)
- c) Define Atmosphere. (2marks)

Question Five. (20marks)

- a) Briefly discuss the effects Air Pollution. (8marks)
- b) Outline the elements of Climate. (8marks)
- c) Discuss the igneous rock classification based on silica content. (4marks)