UNIVERSITY OF FORT HARE

GLG 322
Metamorphic Petrology
Engineering Geology

Main Examinations: November 2018

Time: 3 Hours
Subject: Geology

Marks: 100
One paper

This paper consists of 3 pages including the cover pages

Internal Examiners:
Mr C.J Gunter
Mr S. Sinuka

External Examiner:
Dr S Misra

INSTRUCTIONS

Answer two (2) questions from each of Section A and B
SECTION A: METAMORPHIC PETROLOGY

QUESTION 1
Write an essay on the concept of metamorphic facies and on their significance in petrogenetic interpretation. [25]

QUESTION 2
Describe the progressive changes in the mineralogy of rocks with increasing temperature and pressure according to the classic Barrovian Zonal Scheme. [25]

QUESTION 3
Argillaceous rocks are of particular importance in studies of metamorphism because they develop a wide range of distinctive minerals. Write an essay on the representation of such stable assemblages on metamorphic phase diagrams. [25]

SECTION B: ENGINEERING GEOLOGY

QUESTION 4
With the aid of drawings, write an essay on the main types of mass wasting, and explain the formation processes and formation mechanisms of the various type of mass wasting. [25]

QUESTION 5
Give an account on the definition of soil, and the classification schemes of soil types based on the soil texture, structure and origin. You should use drawings/diagrams to support your description and explanation. [25]

QUESTION 6
With the aid of drawings/diagrams, write an essay on the physical properties of soils. [25]