



KIBABII UNIVERSITY COLLEGE

(A Constituent College of Masinde Muliro University of Science Technology)

P.O. Box 1699-50200 Bungoma, Kenya

Tel. 020-2028660/0708-085934/0734-831729

E-mail: enquiries@kibabiiuniversity.ac.ke

UNIVERSITY REGULAR EXAMINATIONS
2014/2015 ACADEMIC YEAR
SEMESTER EXAMINATIONS
FACULTY OF SOCIAL SCIENCE EDUCATION
SCHOOL BASED

COURSE CODE: GEO 120

COURSE TITLE: EARTH AND PHYSICAL ENVIRONMENT

DATE: 27TH AUGUST, 2014

TIME: 2:00P.M.-5:00P.M.

Instructions

- Answer Question One (Q1) Compulsory
- Answer any other THREE (3) Questions
- Use illustrations where appropriate

1. **a)** Distinguish between Vulcanicity and Volcanicity (3 marks)
b) Explain the formation of frontal rainfall (3 marks)
c) Describe the characteristics of the interior structure of the earth (15 marks)
d) Discuss the causes of air pressure variation (4 marks)

2. Describe the formation and distribution of orographic and convectional rainfall in Kenya (15 marks)

3. Describe the various types of sedimentary rocks (15 Marks)

4. Discuss the effects of anthropogenic activities on climate

5. Define the term biogeography and describe the various types of biogeographical distribution (15 marks)

6.
 - i. Define the term soil water balance
 - ii. State the importance of water to a plants life
 - iii. Discuss the importance of monitoring soil water balance

 - iv. Mr Wafula owns a 2 hectare piece of land at Kibabii region whose soil type is vertisol. The main crop grown in the region is sorghum for the period between 01st to 31st August 2014. Given soil moisture in the profile on August 01 (M1) =300mm,
Precipitation (P) =70mm,
Irrigation (I) =Nil
Ground water (C) =Nil
Run-off of 200m³ from R=10mm
Deep drainage (D)=Nil
Soil moisture in the profile on August 31st (M2) =250mm
Estimate evapotranspiration (ET) from the field during 01 to 31st August.