



*(Knowledge for Development)*

# **KIBABII UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2021 / 2022 ACADEMIC YEAR**

### **SECOND YEAR 1ST SEMESTER SPECIAL / SUPPLEMENTARY EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE AND  
BIOTECHNOLOGY & BACHELOR OF SCIENCE AGRICULTURE  
ECONOMICS AND RESOURCE MANAGEMENT**

**COURSE CODE:** ASS 211/SAB 211  
**COURSE TITLE:** AGROGEOLOGY

**DATE:** 18<sup>TH</sup> JULY 2022

**TIME:** 2 – 4 PM

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#### **INSTRUCTIONS TO CANDIDATES**

Answer Question ONE and any other TWO Questions

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

1. a) State the role of a Geologist in Agrogeology field (4 Marks)  
b) Identify the main limiting nutrients of sub Saharan Africa soils. (1 Mark)  
c) Briefly explain the purpose of rocks and minerals in crop production (6 Marks)  
d) State the main mineral in phosphate rocks (1 Mark)  
e) Describe how liming affects the phosphate rock dissolution (6 Marks)  
f) State the various sources of guano and PRs in Kenya (12 Marks)
  
2. a) Describe the reactivity of PR (2 Mark)  
b) State and explain three examples of K minerals. (6 Marks)  
c) Briefly describe industrial wastes that can be applied in low cost agriculture to replenish soil fertility in the tropics. (12 Marks)
  
3. a) Differentiate between sedimentary and igneous PRs. (6 Marks)  
b) Describe the properties of perlite as an agromineral. (10 Marks)  
c) Briefly explain the moisture storing rocks. (4 Marks)
  
4. Discuss the uses of dolomite as an agromineral on the farms. (20 Marks)
  
5. Describe the functions of Natural Zeolites in the field of Agrogeology. (20 Marks)