



(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR

FOURTH YEAR 2ND SEMESTER
SPECIAL/SUPPLEMENTARY EXAMINATIONS

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE AND
BIOTECHNOLOGY**

COURSE CODE: SAB 415

COURSE TITLE: SOIL AND WATER CONSERVATION

DATE: 18TH JANUARY 2022

TIME: 8 – 10 AM

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) List four indicators of soil quality (4marks)
- (b) Distinguish between erodibility and erosivity (4marks)
- (c) State two practical applications of universal soil loss equation (2marks)
- (d) State five modes of water erosion (5marks)
- (e) State five benefits of harvesting rain water (5marks)
- (f) State five modes of water erosion (5marks)
- (g) State the rules governing the protection of soil on slopes beyond 12 % based on agricultural act CAP 318 on soil and water conservation (5marks)
2. (a) State and explain four types of ponds that serve as water harvesting structures (8marks)
- (b) Describe the design of farm ponds highlighting the features considered in the process (12 marks)
3. (a) Describe five soil and water management practices that can be employed in increasing soil cover (10 marks).
- (b) Discuss five mechanisms that can be used to reduce soil and water pollution in an agricultural productive land (10 marks)
4. Discuss the factors leading to degradation of land and water resources in Kenya(20 marks)
5. Exhaustively describe the mechanisms for soil and wind erosion giving examples (20 marks)