



(Knowledge for Development)

## KIBABII UNIVERSITY

# UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR

# FIRST YEAR 1ST SEMESTER SPECIAL/SUPPLEMENTARY EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE AND BIOTECHNOLOGY, BACHELOR OF SCIENCE IN AGRICULTURE ECONOMICS AND RESOURCE MANAGEMENT, BACHELOR OF SCIENCE AGRICULTURE EDUCATION AND EXTENSION & BACHELOR OF EDUCATION SCIENCE

COURSE CODE:

**SAB 101** 

COURSE TITLE:

AGRICULTURAL BOTANY

DATE: 4TH OCTOBER 2018

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

### SECTION A – ANSWER ALL QUESTIONS

- 1. (a) Define agricultural botany and briefly outline its scope (5 marks)
  - (b) Explain any FIVE effects of high temperature stress on growth and grain yield of sorghum and maize (5 marks)
  - (c) Fruits whether true or false, are broadly classified into three groups. With examples discuss the simple and aggregate types of fruits. (5 marks)
  - (d) Identify the family, genus and species of Banana and cowpeas crops (5 marks)
  - (e) Briefly describe the function of roots in a cereal crop plant (5 marks)
  - (f) Explain TWO similarities and THREE differences of gymnosperms and angiosperms (5 marks)

## SECTION B: ANSWER ANY TWO QUATIONS (40 marks, 20 Marks each)

- The tap root system is meant to absorb water and mineral salts and to give proper anchorage
  to the plant, but in some it is modified for storage of food. With examples discuss FIVE types
  of tap roots modified for food storage. (20 marks)
- 3. (a) Describe the process of Krebs cycle during aerobic respiration in plants (10 marks)
  - (b) Briefly explain the factors the factors that influence respiration in plants (10 marks)
- 4. Discuss the mechanisms of water and salt absorption by plants (20 marks)