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*(Knowledge for Development)*

# **KIBABII UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**2020/2021 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER**

**MAIN EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE**

**COURSE CODE: SAB 430**

**COURSE TITLE: SEED SCIENCE AND TECHNOLOGY**

**DATE: 14<sup>TH</sup> JULY 2021**

**TIME: 2PM – 4 PM**

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## **INSTRUCTIONS TO CANDIDATES**

Answer Question One (COMPULSORY) and Any other TWO (2) Questions

TIME: 2 Hours

This Paper Consists of 2 Printed Pages. Please Turn Over. 

**QUESTION ONE (COMPULSORY)****(30 MKS)**

- a. Describe FOUR genetic principles of seed technology (8 MKS)
- b. Describe THREE main features of breeding in seed technology (6 MKS)
- c. Outline two methods of seed purity analysis (2 MKS)
- d. List the functions of the following in seed formation and development:
  - i. Stamen (2 MKS)
  - ii. Pistil (2 MKS)
- e. Describe FIVE classes of seed (10 MKS)

**QUESTION TWO**

- a. Describe the following types of seed dormancy:
  - i. Exogenous seed dormancy (3 MKS)
  - ii. Endogenous seed dormancy (3 MKS)
  - iii. Secondary seed dormancy (2 MKS)
- b. Outline SIX agronomic principles of seed production (12 MKS)

**QUESTION THREE**

- a. List FIVE steps in seed certification procedure (10 MKS)
- a. Outline FOUR factors that determine the choice of seed drying method. (8 MKS)
- b. List TWO main objectives of seed certification. (2 MKS)

**QUESTION FOUR**

- a. Describe the following types of seed;
  - i. Recalcitrant seed (5 MKS)
  - ii. Orthodox seed (5 MKS)
- b. List THREE methods of breaking seed dormancy (6 MKS).
- c. Outline two methods of seed purity analysis (4 MKS)