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**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER
SPECIAL/SUPPLEMENTARY EXAMINATIONS**

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

COURSE CODE: ACR 313

COURSE TITLE: CROP PHYSIOLOGY

DATE: 4TH AUGUST 2023

TIME: 2 – 4 PM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



1. (a) (i) In higher plants, minerals are taken up from the soil or surrounding water by roots. explain the processes involved. (6 marks)
(ii) Explain the role played by auxins in plant tropisms. (4 marks)
- (b) (i) List seven (7) causes of low seed vigour. (7 marks)
(ii) Mention three roles played by mineral elements in plant physiology. (3 marks)
- (c) Identify the types of dormancy exhibited by crop seeds and state their significance. (10 marks)
2. Explain the role of essential microelements in plant physiological processes. (20 marks)
3. Discuss the factors that influence flowering in higher plants. (20 marks)
4. Explain the role of passive and active transport in plant water and mineral uptake and highlight the factors affecting these processes. (20 marks)
5. Discuss the role of plant hormones in growth and development. (20 marks)