



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)  
MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**THIRD YEAR SECOND SEMESTER**

**BACHELOR OF SCIENCE IN AGRICULTURE AND EDUCATION EXTENSIO  
(BSC AGED)  
(MAIN EXAMINATION)**

**COURSE CODE: AGR 321  
COURSE TITLE: CROP PROTECTION**

DATE: 29/04/2022

TIME: 12-2

INSTRUCTION TO CANDIDATES

Answer all questions in section A and 3 questions from section B

TIME: 2 hours

MMUST observes ZERO tolerance to examination cheating

*This paper consists of TWO printed pages. Please Turn Over*



## **SECTION A**

**Answer All Questions in Section A (30 Marks) and TWO in section B, (40 Marks)**

- 1 Define the term ecology and explain how it is important in controlling insect Pests (6 marks)
- 2 Discuss toxicity in chemical control of pests. State why one should advocate safe use of Integrated Pest Management Principles in practices of crop pest management (4 marks).
- 3 Differentiate Insect pests, weeds and disease causing pests 10 marks)
- 4 Define Epidemiology. How can disease forecasting prevent losses before an epidemic? occurs. Give examples (10 marks)

## **SECTION B**

**Answer 2 questions from section B**

- 1 Discuss Host plant resistance, explain how this has been used in modern times to control diseases caused by Fungi, bacteria and viruses (20 marks)
- 2 Discuss Impact of weeds in agro-ecosystems, weed biology, weed crops interaction, and cultural weed management systems (20 marks)
- 3 Define herbicides; herbicide and plant selectivity, herbicide use in selected crops. (20 marks)
- 4 Give a comprehensive definition of a disease. Describe how the disease presence in a plant can be confirmed using Kocks postulate with known examples from the plant Kingdom (20 marks) .