



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2023/2024

### THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

#### AAA 3302: PLANT PATHOLOGY

DATE: DECEMBER 2023

TIME: 2 HOURS

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INSTRUCTIONS: Answer question *one* and any other *two* questions

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#### QUESTION ONE (30 MARKS)

- a) Describe the following terms as used in plant pathology:
- (i) Hypertrophy (2 marks)
  - (ii) Epidemiology (2 marks)
  - (iii) Pathogenesis (2 marks)
- b) Explain the use of genetic engineering techniques in plant disease management (6 marks)
- c) Describe four characteristics of viral diseases (4 marks)
- d) Describe two fungal diseases with details in the following areas:
- (i) Causal agent (4 marks)
  - (ii) Symptoms (6 marks)
  - (iii) Control (4 marks)

#### QUESTION TWO (20 MARKS)

- a) Explain the role of enzymes in plant disease development (10 marks)
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ISO/IEC 27001:2013 CERTIFIED

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- b) Discuss the cultural methods of plant disease management (10 marks)

**QUESTION THREE (20 MARKS)**

- a) Explain the process of disease development in plants (12 marks)  
b) Explain the effect of toxins in plants (8 marks)

**QUESTION FOUR (20 MARKS)**

- a) Discuss four factors that influence plant disease development (8 marks)  
b) Discuss the non parasitic causes of plant diseases (12 marks)

