



MACHAKOS UNIVERSITY

University Examinations 2022/2023 academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

THIRD YEAR SEMESTER EXAMINATION FOR

BACHELOR OF EDUCATION

SBT 205: PHYTOPATHOGENS

DATE:

TIME:

INSTRUCTIONS

1. Answer Question 1 (compulsory) and **any two** questions in Section B.
2. Use clean well labelled diagrams wherever appropriate.

SECTION A (COMPULSORY)

QUESTION ONE (30 MARKS)

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|----|---|-----------|
| a) | Describe the term plant disease | (3 marks) |
| b) | With examples, differentiate between symptoms and signs in plant pathology | (3 marks) |
| c) | Giving two examples, describe how plant viruses are named | (3 marks) |
| d) | Describe the features of plant parasitic nematodes | (3 marks) |
| e) | Describe the symptoms of fungi and fungi-like infections in plants | (3 marks) |
| f) | Describe the significance of mycorrhizal association | (3 marks) |
| g) | Briefly describe the disease triangle | (3 marks) |
| h) | Describe the infection process of powdery mildew | (3 marks) |
| i) | Describe host resistance to rust diseases | (3 marks) |
| j) | Describe the three types of nutrition employed by parasitic plant nematodes | (3 marks) |

SECTION B: ANSWER ANY TWO QUESTIONS

QUESTION TWO (20 MARKS)

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|----|--|------------|
| a) | Discuss the use of Koch's postulate to identify novel plant bacterial diseases | (10 marks) |
| b) | Discuss the management of plant bacterial diseases | (10 marks) |

QUESTION THREE (20 MARKS)

Discuss the effect of environmental factors on soil borne plant pathogens

QUESTION FOUR (20 MARKS)

Discuss plant disorders caused by abiotic factors.

QUESTION FIVE (20 MARKS)

Discuss powdery mildew on cucurbits.