

BINDURA UNIVERSITY OF SCIENCE EDUCATION
DEPARTMENT OF BIOLOGICAL SCIENCES
MSc APPLIED MICROBIOLOGY AND PLANT PATHOLOGY
PLANT VIROLOGY AND NEMATOLOGY (MPP519)

EXAMINATION
2 HOURS (100 MARKS)

JUN 2025

INSTRUCTIONS

Answer TWO out of the following questions. You MUST answer ONE question from Section A and ONE question from Section B. Each question carries 50 MARKS. Where a question contains subdivisions, the mark value of each subdivision is given in brackets. Illustrate your answers, where appropriate, with large, clearly labeled diagrams. You should not spend more than 1 hour on each question.

SECTION A

1. You are presented with a plant that shows signs of viral infections. Outline the procedure you would follow to identify the disease.
2. a. Describe the damage caused by *Meloidogyne* spp. of nematodes in tobacco. (20 marks)
b. Outline the isolation and identification of *Meloidogyne* spp. (25 marks)
b. Outline the control options for these nematodes in Zimbabwe. (5 marks)

SECTION B

3. a. Using examples, discuss the survival and dissemination of plant viruses. (30 marks)
b. Suggest methods of controlling plant viruses. (20 marks)
4. Describe any five virus diagnostic techniques.

END OF EXAMINATION QUESTION PAPER