

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

AGC421

Department of Crop Science
BSc Agricultural Science (Honours) Part IV Examination
Biology and Management of Insect Pests

3 HOURS (100 Marks)

INSTRUCTIONS

NOV 2024

Answer any **FOUR** questions. Each question carries 25 marks.

1. (a) With the aid of examples, distinguish between primary and secondary pests. [5 marks]
(b) Pests do not recognize borders. Discuss how the spread of stored products pests can be minimized. [20 marks]
2. Giving examples, discuss the use of cultural control method in the management of insect pests. [25 marks]
3. Biological control is one of the methods used in insect pest management.
 - (a) Outline the advantages and disadvantages of biocontrol. [7 marks]
 - (b) Explain the three approaches to biological control as an active pest management tactic. [9 marks]
 - (c) Giving examples, discuss the use of any three natural enemies in biological control of insect pests. [9 marks]
4. Discuss how insects attain pest status. [25 marks]
5. (a) Giving examples, define the following terms as used in insect pest management:
 - (i) indirect pests
 - (ii) oligophagous pests.
 - (iii) economic injury level
 - (iv) economic threshold [8 marks]
 - (b) Giving examples, outline the limitations of the economic injury level concept. [6 marks]
 - (c) Explain why it is important to define a pest's plant host range? [6 marks]
 - (d) Explain why integrated pest management is mostly recommended. [5 marks]
6. Discuss the concept of legislative insect pest management, giving examples. [25 marks]

End of paper