

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

DEPARTMENT: NATURAL RESOURCES

COURSE CODE NRF402: FOREST PATHOLOGY AND ENTOMOLOGY

DURATION: 2 HOURS

TOTAL MARKS: 70

INSTRUCTIONS TO CANDIDATES

 MAR 2023

Answer *Three* questions out of the following *Five* questions. You must answer question *One* from Section A and any *Two* questions from Section B.

SECTION A

1. With the aid of a diagram and examples, explain the importance of the disease triangle in determining disease incidence and virulence. [30 Marks]

SECTION B

2. Compare the signs and symptoms of the following pathogens and pests on eucalypts:
- a) *Leptocybe invasa* and *Glycaspis brimblecombei*. [4 Marks]
 - b) *Teratosphaeria gauchensis* and *Neofussicoccum eucalyptorum* [16 Marks]
3. With the aid of relevant examples, explain factors which trigger the attack of trees by Botryosphaeriaceae. [20 Marks]
4. Enemies of tree species track them from their native ranges to areas where they are domesticated. Discuss. [20 Marks]
5. Design a pest management strategy for a *Eucalyptus* plantation exhibiting high infestation levels of *Leptocybe invasa*, *Thaumastocoris peregrinus* and *Glycaspis brimblecombei* and severe symptoms of Coniothyrium stem canker. [20 Marks]

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