

BINDURA UNIVERSITY OF SCIENCE EDUCATION
DEPARTMENT OF BIOLOGICAL SCIENCES
HBScED/BScBZH
EVOLUTIONARY BOTANY (BZH 203)

EXAMINATION
2 HOURS (100 MARKS)

 **AUG 2023**

INSTRUCTIONS

Answer **FOUR** questions. You **MUST** answer **QUESTION 1** (Section A) and any **THREE** questions from Section B. Each question carries **25 MARKS**. Where a question contains subdivisions, the mark value of each subdivision is given in brackets. Illustrate your answers where appropriate with large, clearly labelled diagrams. You should not spend more than thirty minutes on each question.

SECTION A (COMPULSORY)

1. Outline the characteristics that would be used to identify each of the 4 groups of plants (Bryophyte, Pteridophyte, Gymnosperms, and Angiosperms) in the field.

SECTION B

2. (a) Explain the term "alternation of generations". (5 marks)

(b) Provide a detailed account of alternation of generations in any one of the four groups of plants. (20 marks)
3. Describe the key characteristics of bryophytes, explaining the evolutionary advancement of the group and its continued restricted distribution.
4. (a) Describe the major similarities between green algae and the higher plants. (10 Marks)
b) Discuss the validity of combining pteridophytes, gymnosperms and angiosperms into tracheophytes. (15 Marks).
5. a. Discuss the evolutionary significance of pollen. (10 Marks)
b. Explain the evolutionary significance of three shared, derived characteristics of angiosperms (15 Marks)
6. Explain the success of flowering plants in terms of diversity and ecological dominance.

END OF EXAMINATION QUESTION PAPER

