

**BINDURA UNIVERSITY OF SCIENCE EDUCATION**  
**DEPARTMENT OF BIOLOGICAL SCIENCES**  
**BScBZH/HBScED/BScED**  
**PRINCIPLES OF ECOLOGY (BZH114)**  
**ECOLOGY (BZH201)**

 **AUG 2023**

**EXAMINATION**  
**2 HOURS (100 MARKS)**

**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.

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**SECTION A (COMPULSORY)**

1. (a) Describe a procedure to measure diversity of species in different ecological Habitats. (15 marks)
- (b) Outline causes of species loss in ecosystems. (5 marks)

**SECTION B.**

2. (a) Describe the processes of a named Biogeochemical cycle. (15 marks)
- (b) Discuss human impacts on the nitrogen cycle. (10 marks)
3. Describe the process of ecological succession.
- 4(a) Write short notes on any **FIVE** of the following:
  - (i) Scramble competition
  - (ii) Contest competition
  - (iii) Realised niche
  - (iv) Point source pollution
  - (v) Non-point source pollution
  - (vi) Life Table
5. Describe the major types of community interactions.
6. (a) Describe the causes of water pollution. (15 marks)
- (b) Discuss measures to reduce water pollution (10 marks)

**END OF EXAMINATION QUESTION PAPER**