

BINDURA UNIVERSITY OF SCIENCE EDUCATION
DEPARTMENT OF BIOLOGICAL SCIENCES
DIPLOMA IN SCIENCE EDUCATION
BIODIVERSITY AND ECOSYSTEMS (BZ007)

JUN 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.

SECTION A (COMPULSORY)

1. (a) Describe a procedure to measure the biodiversity of a given community. (13 Marks)
- (b) Explain the effects of over exploitation and introduction of exotic species on biodiversity. (12 Marks)

SECTION B

2. Describe the process of ecological succession.
3. (a) Describe the major threats to biodiversity. (15 marks)
- (b) Provide an outline of the major reasons for conserving biodiversity. (10 marks)
4. Write brief notes on any **FIVE** of the following
 - (a) Pyramid of biomass (5 Marks)
 - (b) Ecosystem diversity (5 Marks)
 - (c) Food chains (5 Marks)
 - (d) Genetic diversity (5 Marks)
 - (e) Species diversity (5 Marks)
 - (f) Community ecology (5 Marks)
5. Describe any five types of community interactions.

6. Write an essay on ONE international convention and ONE local legal instrument that guide biodiversity conservation in Zimbabwe.

END OF EXAMINATION QUESTION PAPER