

# **BINDURA UNIVERSITY OF SCIENCE EDUCATION**

## **DEPARTMENT OF BIOLOGICAL SCIENCES**

**BSc HONOURS IN BIOLOGICAL SCIENCES/BSc HONOURS IN EDUCATION (BIOLOGY)**

**DIVERSITY OF LIFE 1 (BZH 101)**

**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. a. Make a labelled drawing of any named green algae species of your choice and label structures that can be observed under a compound microscope. (10 marks)
- b. Make labelled drawings of a representative of any one of the three bryophyte groups. (15 marks)
- c. List any FIVE differences between algae and bryophytes. (5 marks)

### **SECTION B**

2. (a) Describe Darwin's theory of evolution. (10 marks)
- b. Discuss the evidence of evolution. (15 Marks)
3. a. Explain the importance of biological classification. (10 marks)
- b. Outline the two-kingdom classification and explain its weaknesses. (15 Marks)
4. a. Describe the distinguishing characteristics of cyanobacteria. (15 marks)
- b. Distinguish between cyanobacteria and green algae. (10 marks)
5. Write an essay on the diversity of Protista (Protoctista).
6. a. Discuss the diversity within the Gymnosperms. (20 Marks)
- b. Outline any FIVE differences between gymnosperms and angiosperms. (5 Marks)

**END OF EXAMINATION QUESTION PAPER**