

**THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATION COUNCIL  
DIPLOMA IN SECONDARY EDUCATION EXAMINATION**

733/1

**BIOLOGY 1**

**Time: 3 Hour.**

**Tuesday 06/05/2003 a.m**

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**Instructions**

1. This paper has Section A, B and C.
2. Answer **all** questions from Section A and **two (2)** questions from Section B and C each.
3. Section A and B carry 30 marks each and Section C carries 40 marks.
4. Mobile phones are not allowed inside the examination room.
5. Write your Examination Number on every page of your answer booklet.

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### **SECTION A (40 Marks)**

Answer all questions in this section.

1. Define ecology and list four ecosystem components.
2. List four differences between arteries and veins.
3. Give four causes of genetic variation.
4. State four environmental factors affecting photosynthesis.
5. List four types of fungi used in industry.
6. Give four symptoms of vitamin C deficiency.
7. Mention four properties of acids and bases.
8. State four roles of teachers during practical sessions.
9. List four advantages of plants' cross-pollination.
10. State four elements commonly found in proteins.

### **SECTION B (30 Marks)**

Answer two questions in this section.

11. Explain the structure and function of the mammalian nephron.
12. Discuss types and importance of immunity.
13. Describe the mechanism of nerve impulse transmission.
14. Explain ecological niches using examples.

### **SECTION C (30 Marks)**

Answer two questions in this section.

15. A lesson on cellular respiration is disrupted mid-way by fire drill. Outline six steps to salvage learning and reschedule demonstration.
16. Learners misinterpret the meaning of "optimum" in enzyme graphs. Describe six instructional approaches to clarify and reinforce concept.
17. A peer-review session shows inconsistent feedback quality. Detail six guidelines you would give to improve accuracy and development-focused feedback.
18. A teacher ignores bilingual learners during explanation. Propose six inclusive strategies to support language and concept understanding.