

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

733/1

**BIOLOGY 1**

**Time: 3 Hour.**

**Tuesday 08/05/2001 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 mutation and give four types.
2. List four causes of soil infertility.
3. State four adaptations of desert animals.
4. Give four functions of blood.
5. List four methods for testing food samples.
6. State four ways pathogens enter the human body.
7. Mention four roles of mitosis.
8. Give four features of good field-based Biology lessons.
9. List four differences between plant and animal cells.
10. State four reasons for using peer assessment in teaching.

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

Answer two questions in this section.

11. Explain the process and stages of PCR in microbiology.
12. Discuss the carbon and oxygen exchange in ecosystems.
13. Describe human endocrine regulation of calcium.
14. Explain the structure and functions of DNA.

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

Answer two questions in this section.

15. During field trip, wild animal scares learners and aborts lesson. Detail six safety, educational, and emotional follow-up steps.
16. A trainee teacher rushes through discuss and misses learning checks. Provide six reflective coaching points to improve pacing and assessment.
17. Students report a classmate skipped peer feedback sessions. Outline six accountability and remediation strategies.
18. Lab chemicals spill during enzyme investigation. Describe six immediate and long-term lab safety and procedural responses.