

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

733/1

BIOLOGY 1

Time: 3 Hour.

Tuesday 04/05/2004 a.m

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 (30 Marks)

Answer all questions in this section.

1. State four methods of conserving biodiversity.
2. List four roles of enzymes in metabolism.
3. Give four structural differences between monocots and dicots.
4. Name four kinetic properties affecting diffusion rate.
5. List four sources of human exposure to pathogens.
6. State four steps in carbohydrate digestion.
7. Give four effects of deforestation on ecosystems.
8. List four types of connective tissue.
9. Mention four benefits of using ICT in Biology lessons.
10. State four criteria for choosing practical assessment methods.

SECTION B (30 Marks)

Answer two questions in this section.

11. Describe the nitrogen cycle and discuss its importance to agriculture.
12. Explain adaptations of aquatic plants.
13. Discuss the process and control of osmosis in plant/animal cells.
14. Describe structure and functions of the human heart.

SECTION C (30 Marks)

Answer two questions in this section.

15. After a viral outbreak, field sampling of water sources is canceled. As teacher, propose six alternative pedagogical activities to meet learning objectives.
16. Students record wrong units during enzyme rate practical. Provide six instructional steps to improve data accuracy and interpretation.
17. A trainee teacher reads from the lesson plan without engaging students. Offer six constructive feedback points to enhance interactivity and professional growth.
18. A lab lacks microscopes for a slide study. Suggest six improvisation techniques to achieve educational outcomes.