

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

733/1

BIOLOGY 1

Time: 3 Hour.

Tuesday 03/05/2007 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 (40 Marks)

Answer all questions in this section.

1. Mention four differences between complete and incomplete metamorphosis.
2. List four functions of blood in the human body.
3. Give four examples of genetically inherited diseases in humans.
4. Outline four principles of natural selection.
5. List four teaching resources useful in a topic on “Transport in Plants”.
6. Mention four effects of eutrophication in aquatic ecosystems.
7. State four ways to maintain hygiene in the school laboratory.
8. List four examples of heterotrophic organisms.
9. Mention four human-induced factors that cause climate change.
10. List four qualities of an effective Biology teacher.

SECTION B (30 Marks)

Answer two questions in this section.

11. Describe the structure and function of the mammalian heart.
12. Explain the importance of transpiration in plants and the factors that affect its rate.
13. Discuss the main types of immunity and how they function in protecting the body.
14. Describe the process of digestion in the alimentary canal, from ingestion to egestion.

SECTION C (30 Marks)

Answer two questions in this section.

15. As a Biology teacher, explain six uses of a practical approach when teaching complex topics.
16. Describe six techniques of integrating formative assessment into daily Biology lessons.
17. Discuss six ways of motivating students in learning Biology in rural schools.
18. Explain six ethical responsibilities of a Biology teacher in the context of classroom and school community.