

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

733/1

**BIOLOGY 1**

**Time: 3 Hour.**

**Tuesday 09/05/2017 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.

maktaba.tetea.org



### **SECTION A (30 Marks)**

Answer all questions in this section.

1. List four features that distinguish annelids from arthropods.
2. Briefly explain four biological factors that influence population size in an ecosystem.
3. Mention four laboratory safety practices that should be observed when handling corrosive chemicals.
4. State four differences between mitosis and meiosis.
5. Describe four characteristics of enzymes that support their function in living organisms.
6. Give four examples of communicable diseases and their causative agents.
7. Briefly explain the importance of lesson plan evaluation to a Biology teacher.
8. Outline four criteria for selecting effective teaching aids in Biology.
9. State four factors that affect the rate of diffusion across cell membranes.
10. List four differences between monocotyledonous and dicotyledonous plants.

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

Answer any two questions from this section

11. Explain the structure and functions of the human respiratory system. Use relevant diagrams where necessary.
12. Discuss the adaptations of xerophytes to survive in arid environments.
13. Describe the process of photosynthesis, including the stages and significance to living organisms.
14. With examples, discuss five types of asexual reproduction in living organisms and their advantages.

### **SECTION C (40 Marks)**

Answer any two questions from this section.

15. As a Biology teacher, explain six important aspects to consider when preparing to teach a lesson on digestion in humans.
16. Describe six roles of the teacher during Biology practical sessions and how they influence students' skill acquisition.
17. Explain six challenges faced by Biology teachers during curriculum implementation and suggest practical solutions.
18. Discuss six principles of learner-centered teaching in Biology and how you would apply them in a Form Two class.