

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

733/1

BIOLOGY 1

Time: 3 Hours

Friday, 11th May 2018 a.m.

Instructions

1. This paper consists of sections A, B and C with a total of **sixteen (16)** questions.
2. Answer **all** questions in section A and **two (2)** questions from each of the sections B and C.
3. Section A carries **forty (40)** marks and sections B and C carry **thirty (30)** marks each.
4. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).



DSEE-0518

Page 1 of 3



SECTION A (40 Marks)

Answer **all** questions in this section.

1. Why are the test scores important in the teaching and learning process? Give four points.
2. (a) What are the enzymes?
(b) List down three properties of enzymes.
3. Briefly elaborate the following biological terms:
(a) Exoskeleton (b) Molting
(c) Jointed appendages (d) Haemocoel
4. Briefly explain any four phases of population growth of organisms.
5. (a) Why does a teacher need to do reflection of the teaching and learning process?
(b) Describe three components of a lesson plan that can be filled after a lesson has been taught.
6. (a) What is menopause?
(b) Briefly explain two roles of oestrogen hormone in the menstrual cycle.
7. List four non-textual curriculum materials.
8. (a) What is instructional media?
(b) Outline three roles of instructional media in the teaching and learning process.
9. What are the roles of a Biology teacher in managing and maintaining the Biology laboratory? Give four points.
10. Outline four benefits of genetic engineering in human daily life.

SECTION B (30 Marks)

Answer **two (02)** questions from this section.

1. (a) Explain the concept "Oxygen debt".
(b) Describe the respiratory pathway at which fat is used as a respiratory substrate.
(c) Why the oxidation of fat produces more energy than carbohydrates?
- Why adolescence engage in drug abuse and addiction? Explain by giving six reasons.

13. (a) With the aid of a diagram, describe the process of binary fission in bacteria.
(b) Giving three points, justify the assertion that life on earth could not exist without bacteria.

SECTION C (30 Marks)

Answer two (02) questions from this section.

14. (a) With the aid of a diagram, describe parts of a lesson plan.
(b) Examine and re-write correctly the following specific objectives written by student teachers during microteaching:
(i) Students should define the term Biology.
(ii) Explain factors affecting the rate of photosynthesis.
(iii) Student must understand to explain the roles of enzymes found in the stomach.
15. (a) Analyze five scientific approaches that are followed in gathering information about the natural world.
(b) Identify three different skills that Biology students should have in order to perform practical tasks successfully.
16. Imagine you are assigned a task by your head of department to buy form three Biology textbooks, explain seven factors you will consider in selecting quality textbook.