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

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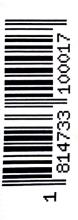
BIOLOGY 1

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).





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SECTION A (40 Marks)

Answer all questions in this section.

- 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.
- 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.

- With the aid of a diagram, describe the process of binary fission in bacteria. 141 11
 - Civing three points, justify the assertion that life on earth could not exist without (11) bas territ

SECTION C (30 Marks)

Answer two (02) questions from this section.

- With the aid of a diagram, describe parts of a lesson plan. (4) 14.
 - Examine and re-write correctly the following specific objectives written by student (6) teachers during microteaching:
 - Students should define the term Biology.
 - Explain factors affecting the rate of photosynthesis. (ii)
 - Student must understand to explain the roles of enzymes found in the stomach. (iii)
- Analyze five scientific approaches that are followed in gathering information about (a) 15. the natural world.
 - Identify three different skills that Biology students should have in order to perform (b) practical tasks successfully.
- Imagine you are assigned a task by your head of department to buy form three Biology ter books, explain seven factors you will consider in selecting quality textbook. 10.