

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

733/1

BIOLOGY 1

Time: 3 Hours

Tuesday, 07th May 2019 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. Sections A carry **forty (40)** marks and sections B and C carry **thirty (30)** marks.
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.

1. Outline four distinctive characteristic features which place human being in the Phylum Chordata.
2. Why is it important for a student teacher to carry out microteaching? Give four points.
3. Outline four basic information required during preparing common dilute acids in the laboratory.
4. State four structural differences between DNA and RNA.
5. Give four importance of using teacher's manual in the teaching and learning process.
6. (a) What are enzyme inhibitors?
(b) Briefly describe the concept of "key and lock" mechanism of enzyme action.
7. Mention four advantages of true/false items.
8. (a) What is the difference between active immunity and passive immunity?
(b) Briefly explain how each of the following blood cells carries out body defense:
(i) Phagocytes.
(ii) Lymphocytes.
9. Outline four principles of teaching and learning Biology that teachers should follow for effective teaching and learning.
10. State four uses of the energy released during respiration.

SECTION B (30 Marks)

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

11. Describe six artificial methods of birth control and for each give one advantage and one disadvantage.
12. (a) Describe the process of energy flow in the ecosystem.

- (b) Study Figure 1 that represents a food web in Serengeti National Park then, construct seven food chains.

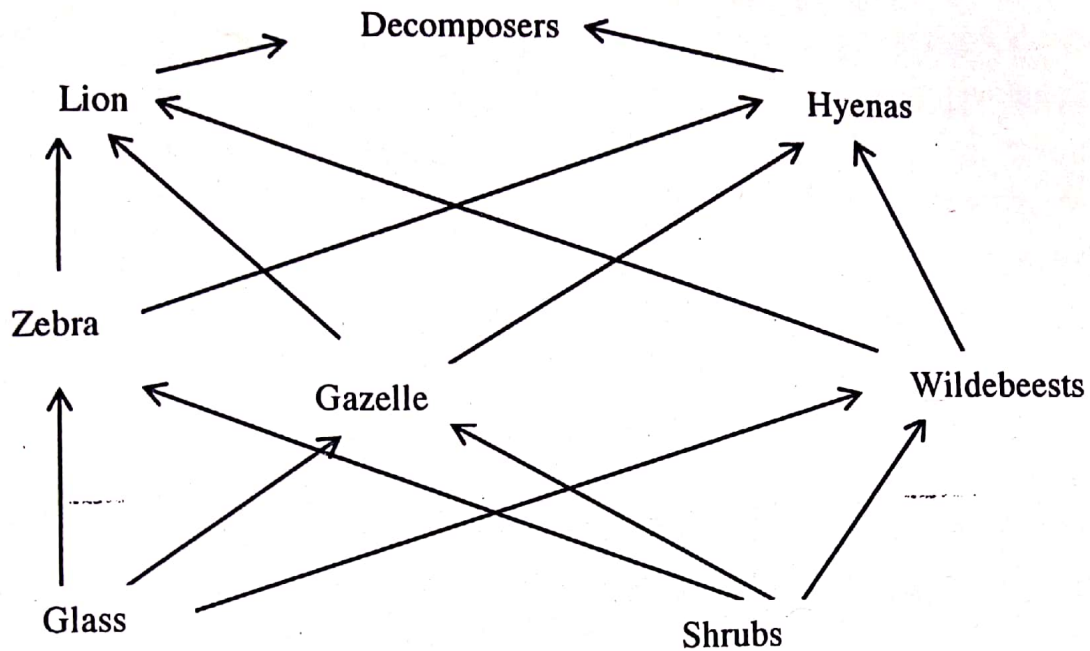


Figure 1

13. With the aid of a diagram, describe the life cycle of a moss plant.

SECTION C (30 Marks)

Answer two (02) questions from this section.

14. Describe seven qualities of a well prepared Biology syllabus.
15. What will happen if one fails to abide to the laboratory rules? Explain by giving seven points.
16. Why is it advised to improvise teaching and learning aids and materials in the teaching and learning process? Explain by giving six reasons.