

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
ADVANCED CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION**

133/2

BIOLOGY 2

(For Both School and Private Candidates)

Time: 3 Hours

Year : 2024

Instructions

1. This paper consists of **six (6)** questions.
2. Answer **five (5)** questions.
3. Each question carries **twenty (20)** marks.
4. All writing must be in **blue** or **black** ink, **except** drawings which must be in pencil.
5. Communication devices and any unauthorised materials are not allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).



1. Identify four Classes of the Phylum to which a crab belongs and analyse four characteristics of each Class.
2. Describe four factors which determine the form in which nitrogenous wastes are eliminated in animals.
3. A viable bean seed was placed in the soil. After seven days the seed developed into seedling.
 - (a) Explain physiological process which led to the development of seedling.
 - (b) Analyse four external conditions that enabled the development of seedling.
4.
 - (a) Account for six success of Mendel's work in genetics.
 - (b) The following table shows blood transfusion in relation to the Rhesus factor. Assess the compatibility of the blood by putting in each cell a tick (✓) if there is no agglutination or a cross (X) if agglutination will occur.

		Donor							
Recipient		A ⁺	A ⁻	B ⁺	B ⁻	AB ⁺	AB ⁻	O ⁺	O ⁻
	A ⁺								
	A ⁻								
	B ⁺								
	B ⁻								

5. Describe any four theories of origin of life.
6. Describe the following types of the world biomes based on their characteristics and distribution.
 - (a) Chaparral
 - (b) Tropical Savannah
 - (c) Grassland
 - (d) Desert