

SECTION A: (16 MARKS)

Answer **all** questions in this section.

1. For each of the items (i) – (x), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer sheet provided.
- (i) A cross between an offspring and a homozygous parent is called
A. Back cross
B. Test cross
C. Crossing over
D. Reciprocal cross
E. Sex cross ()
- (ii) Which of the following is among the products of anaerobic respiration in plants?
A. Ethanol
B. Lactic acid
C. Oxygen
D. Hydrogen
E. Glucose ()
- (iii) The growth or movement of a plant towards or away from gravity is
A. Movement
B. Geotropism
C. Response
D. Nastic movement
E. Phototropism ()
- (iv) A patient was confirmed suffering from meningitis at Bombo hospital. How can the disease be prevented from spreading?
A. Eliminating fleas
B. Abstaining from sex
C. Isolating the patient
D. Wearing gloves after treatment
E. Sleeping under mosquito net ()
- (v) is a tube that is funnel-shaped at the end, adjacent to the ovary enabling the released ovum to be directed towards the uterus.
A. Cervix
B. Vagina
C. Oviduct
D. Vulva
E. Sperm duct ()
- (vi) What will be the genotype of the offspring that will be produced in the first filial generation from a cross between parents of blood group with $I^A I^B$ and $I^B I^0$?
A. $I^A I^A$, $I^B I^B$, $I^B I^0$, $I^A I^0$
B. $I^A I^A$, $I^A I^B$, $I^A I^0$, $I^B I^0$
C. $I^A I^B$, $I^0 I^0$, $I^A I^0$, $I^A I^A$
D. $I^B I^0$, $I^A I^0$, $I^B I^B$, $I^A I^B$
E. $I^A I^A$, $I^A I^B$, $I^0 I^0$, $I^B I^B$ ()
- (vii) Tissue fluid contains the same composition as blood but lacks
A. Carbon dioxide
B. Oxygen
C. Cells and plasma protein
D. Glucose and amino acids
E. Fatty acids and hormones ()

- (viii) Which of the following is a branch of biology? ()
- A. Sociology B. Biologist
C. Anthropology D. Botany
E. Agriculture
- (ix) A position occupied by a group of organisms in a food chain or food web through which energy is passed in the form of food is called ()
- A. Tropic level B. Competition
C. Neutralism D. Decomposer
E. Interconnected food chain
- (x) Blood vessels include: ()
- A. Red blood cell and white blood cells B. Arteries and capillaries
C. Capillaries and white blood cell D. Lymph duct and capillaries
E. Platelets and erythrocytes

2. Which the functions of the parts of the eye in **LIST A** with their corresponding parts in **LIST B** by writing the letter of the correct response beside the item number in the answer booklet provided.

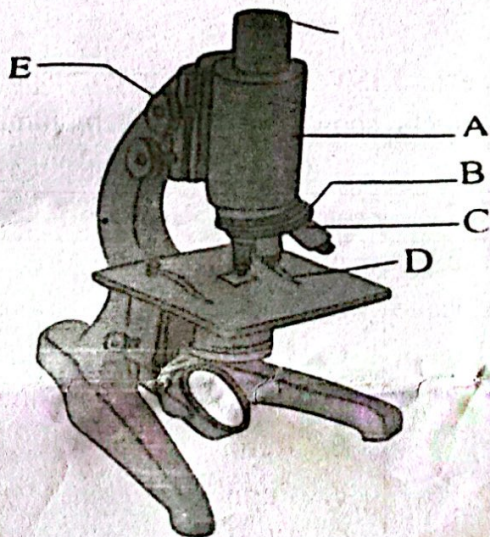
List A	List B
(i) Regulate amount of light entering the eye.	A. Blind spot
(ii) Not sensitive to light but optic nerve leave the eyeball.	B. Lens
(iii) Prevent internal reflection of light.	C. Ciliary body
(iv) Photoreceptors place.	D. Sclera
(v) Produce fluid called aqueous humor.	E. Retina
(vi) Focuses light.	F. Pupil
	G. Iris
	H. Choroid

SECTION B: (54 MARKS)

Answer all questions from this section.

3. Briefly explain six factors which affect seed germination.
4. (a) Briefly explain the given terms as used in genetics:
- (i) Achondroplasia
(ii) Klinefelter's syndrome
(iii) Turner's syndrome
- (b) Differentiate incomplete dominance from codominance.
5. Form four students at Momba Secondary School were asked to collect maize seedlings and pass seedlings during biology practical activities. As a Form Four student:
- (a) State the classes of such plants.
(b) Identify four structural differences between the classes you stated in (a) above.

6. (a) Draw a well-labelled diagram of the human female reproductive system.
(b) Briefly explain four disorders of the female reproductive system.
7. (a) (i) Which enzyme is responsible for breaking down cassava in the mouth?
(ii) Into which form is cassava converted in (i) above?
(b) (i) Which enzymes are responsible for breaking down fish and milk in the stomach?
(ii) Into which form are fish and milk converted in (i) above?
(c) State the end product of the following food in the ileum:
(i) Cassava
(ii) Fish and milk
8. Study the diagram below and answer the questions that follow.



- (a) Name the given diagram.
- (b) Name the parts labelled A to E.
- (c) State the function of each part labelled A to E.

SECTION C: (30 MARKS)

Answer **two (2)** questions in this section.

9. Form four students at Kijenge Secondary School were asked to volunteer on blood transfusion programs. A low number of students responded to the program, while the majority did not participate in the blood transfusion program. What is your influence on the students who did not respond to the blood transfusion program? (4 points)
10. Risk behaviors and practices create many problems. Justify this statement in six points.
11. Your brother is a fisherman, your mother is a farmer, and your uncle is a hunter. They obtain a variety of foods from their activities but do not have food processing industries nearby, and there is no electricity in your village. With an example in each case, explain four methods that will help your family members preserve food obtained for future use.

THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT



FORM FOUR JOINT MOCK EXAMINATION
(TANGA, IRINGA, SINGIDA, MOROGORO, DODOMA,
TABORA, LINDI AND MTWARA)

033/1

BIOLOGY 1

(For Both School and Private Candidates)

Time: 3 Hours

Year: 2025

INSTRUCTIONS

1. This paper consists of sections A, B and C with a total of **eleven (11)** questions.
2. Answer **all** the questions in sections A and B, and **two (2)** questions from section C.
3. Section A carries **sixteen (16)** marks, section B **fifty four (54)** marks and section C carries **thirty (30)** marks.
4. All writing should be in **blue or black pen**, **except** for diagrams that must be drawn in pencil.
5. Communication devices and any unauthorized materials are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

This paper consists of 4 printed pages