

Candidate's Examination Number _____

CBBIH0

**THE REVOLUTIONARY GOVERNMENT OF ZANZIBAR
ZANZIBAR EXAMINATIONS COUNCIL
FORM THREE ENTRANCE EXAMINATION**

217

BIOLOGY

TIME: 2:30 HOURS

MONDAY 21ST OCTOBER, 2024 A.M

INSTRUCTIONS TO THE CANDIDATE

1. This paper consists of **THREE (3)** sections A, B and C.
2. Answer **ALL** questions in section A and B, and **TWO (2)** questions in section C. Question **NINE (9)** is compulsory.
3. Write your examination number on each page.
4. Write your answers in the space provided.
5. Use a blue or black pen in writing. Diagrams must be in pencil.
6. Cellular phones and unauthorized materials are not allowed in the examination room.

FOR EXAMINER'S USE ONLY		
QUESTION NUMBER	MARKS	SIGNATURE
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9a.		
9b.		
10.		
11.		
TOTAL		
CHECKER'S SIGNATURE		



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This paper consists of 12 printed pages

SECTION A: (30 Marks)

Answer ALL questions in this section.

1. Choose the correct answer from the given alternatives and write its letter in the table below.
 - i. Which of the following parts is used to carry the microscope?
 - A. Arm and base
 - B. Condenser and Mirror
 - C. Eyepiece and clip
 - D. Stage and arm
 - ii. The vitamin that helps to maintain strength of teeth and bones is called
 - A. Vitamin A
 - B. Vitamin B
 - C. Vitamin D
 - D. Vitamin K
 - iii. Which substance passes through the semi-permeable membrane during the process of osmosis?
 - A. Glucose
 - B. Protein
 - C. Sand
 - D. Water
 - iv. Which is the relevant principle of good manners in a conversation?
 - A. Disagree the opinion to other
 - B. Dominate the conversation
 - C. Speak in clear voice
 - D. Use foul language

- v. The symbol of flammable means
- A. Be careful
 - B. Catch fire easily
 - C. Poisonous
 - D. Can explode easily
- vi. In binomial nomenclature, the second part of the name represents
- A. Class
 - B. Genus
 - C. Order
 - D. Species
- vii. Which of the following is the main blood vessel in the body?
- A. Aorta
 - B. Inferior vena cava
 - C. Renal artery
 - D. Superior vena cava
- viii. The bacteria that causes cholera with the shape of a comma is known as
- A. Bacilli
 - B. Coccus
 - C. Spirila
 - D. Vibrio
- ix. What is the name of the wall that separates the xylem and phloem in vascular bundles?
- A. Cambium
 - B. Cortex
 - C. Epidermis
 - D. Pith

- x. What is the structural and functional unit of life?
- A. Atom
 - B. Cell
 - C. Organ
 - D. system

ANSWERS

i	ii	iii	iv	v	vi	vii	viii	ix	x

2. Match the explanations of parts of mushroom in **LIST A** with their appropriate parts in **LIST B**. Write the correct letter in the table below.

LIST A	LIST B
i. The threads filamentous used to absorb nutrients	A. Cell wall
ii. The outer material that protect mushroom from damage which is made up of chitin	B. Gills
iii. The cap like structure that contains gills	C. Hyphae
iv. The part on the bottom side of the cape used to disperse the spores	D. Mycelium
v. The stem like structure used to support the cap	E. Pileus
vi. The layer on the top of the cap used to protects the mushroom	F. Pores
vii. Reproductive cells produced in the gills help to develop new mushrooms	G. Ring
viii. A veil of tissue forms around the stem	H. Scales
ix. A layer of tissue at the base of stipe that protects the immature mushrooms.	I. Spores
x. The collection of hyphae used to attach the mushroom in the soil	J. Stipe
	K. Tubes
	L. Volva

ANSWERS

LIST A	i	ii	iii	iv	v	vi	vii	viii	ix	x
LIST B										

3. Read the sentences below and fill the blank spaces. Use one word for each space.
- i. The laboratory apparatus used for scooping powder or crystalline material is called _____
 - ii. In blood transfusions, the person who receives blood is called _____
 - iii. Yeast belongs to the kingdom _____
 - iv. Rickets are caused by a lack of vitamin _____
 - v. The Mimosa plant's leaves _____ when is touched.
 - vi. The lowest rank in the classification is _____
 - vii. The respiratory organ of insects is known as _____
 - viii. Venom is a toxic substance produced by _____
 - ix. Cytology is the study of _____
 - x. Carnivores are the animals that feed on _____ only.

SECTION B: (50 Marks)

Answer ALL questions in this section.

4. a. Define the term digestion.

- b. A gastric hormone stimulates the production of gastric juice, which has several components. Identify five (5) components of that juice.

- c. Identify three (3) parts of the human digestive system.

5. a. How does the terminology of Biology differ from the Biologist?

- b. List four (4) characteristics of living things.

- c. Biology is a foundation of many scientific fields throughout the world.
Identify four (4) fields that are related to this subject.

6. a. Give two (2) reasons why a person is advised to practice personal hygiene every day.

- b. Ali is fifteen years old but lacks personal hygiene knowledge resulting in poor health. Educate him by identifying three (3) principles of that concept.

- c. Outline five (5) changes that occur in boys during puberty.

7. a. Give a reason, why fish suffocates on land while oxygen is also available?

- b. Name the organs used for gaseous exchange in the following organisms.

i. Cow

ii. Spider

- c. Briefly explain three (3) characteristics of respiratory organs.

8. a. Form two students visited the preserved forest for a study tour of ecology, and observed the following organisms; mushrooms, wild cats, shrubs and grasshoppers. Construct a food chain for the organisms mentioned.

- b. From the food chain you have constructed, identify the following.

i. Producer

ii. Secondary consumer

ii. Decomposer

SECTION C: (20 Marks)

Answer TWO (2) questions in this section.

Question 9 is compulsory. Answer either 9a or 9b.

9. a. 2 cm³ of a food sample solution **V** in a test tube, 2 cm³ of Benedict's solution was added, then boiled. The series of colour changes were observed in the mixture from, blue to green to yellow and finally orange.

i. Identify a food substance present in the solution **V**.

ii. Give a function of the food substance present in the solution **V**.

iii. List three (3) natural sources of food contained in the solution **V**.

9. b. Suppose you have been provided a specimen of moss plant then answer the following questions.

i. Classify moss plant to phylum level.

ii. Name the habitat of the moss plant.

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