TANZANIA HEADS OF ISLAMIC SCHOOLS COUNCIL

FORM FOUR INTER ISLAMIC MOCK EXAMINATION

BIOLOGY 1

033/1 **(For both School and Private Candidates)**

TIME: 3 Hours **Tuesday, 25th August 2026 p.m.**

Instructions

1. This paper consists of sections A, B and C with a total of eleven (11) questions.
2. Answer **all** questions in sections A and B and **two (02)** questions from section C.
3. Section A carries **sixteen (16**) marks, Section B carries **fifty-four (54)** marks, and Section C carries **thirty (30)** marks.
4. All writings must be in **blue** or **black** ink, **except** diagrams, which must be drawn in pencil.
5. Communication devices and any unauthorised materials are not allowed in the assessment room.
6. Write your **Examination Number** on every page of your answer booklet(s) provided.

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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 booklet(s) provided.

(i) Tomato fruits ripened faster in a storage room when placed near ripe bananas. Which hormone is responsible for this effect?

A. Auxin
B. Gibberellin
C. Cytokinin
D. Ethylene
E. Abscisic acid

(ii) A village in Morogoro is experiencing frequent cholera outbreaks due to unsafe water. As a health prefect, you are asked to design the most effective preventive strategy for the community. Which plan would best reduce the spread of the disease?

A. Encourage people to share immunity through close contact
B. Promote the boiling of water, proper sanitation and vaccination
C. Distribute antibiotics to everyone weekly
D. Advise people to avoid sunlight exposure
E. Increase sugar intake to boost body energy

(iii)At home, a certain person questions the safety of genetically modified foods and refuses to consume them. Which evaluation is most scientifically balanced for the stated problem?

A. All genetically modified foods are harmful.
B. Genetically modified foods are always safe.
C. Safety depends on proper testing and regulation
D. Genetically modified foods have no benefits
E. Genetically modified foods cannot be digested

(iv)In a certain plant species, pollen grains land on the stigma but fail to grow pollen tubes down the style. Which stage of reproduction is directly affected?

A. Pollination
B. Seed disposal
C. Fertilisation
D. Germination
E. Gametogenesis

(v) A Form Two student ate a large amount of boiled cassava and later tested a saliva sample in his mouth with iodine solution during a practical lesson. The iodine did not turn blue-black. What is the most accurate explanation for this observation?

A. Salivary amylase had converted starch into maltose in the mouth
B. The iodine solution was too dilute to detect glucose in the mouth
C. Starch digestion occurs only in the stomach, not in the mouth
D. Cassava contains only simple sugars that cannot react with iodine
E. Saliva changed starch directly into amino acids, hence failed to be detected

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(vi) Suppose you want to conduct a biological experiment on the spread of malaria in your society. You are interested in the causes of its spread. Suggest the second scientific method that you would use to attain your goals.

A. Observation and data recording
B. Experimentation
C. Identifying a problem
D. Data analysis and interpretation
E. Formulating a hypothesis

(vii) Two students debated whether smooth muscles or skeletal muscles are responsible for voluntary movements such as writing. Which of the following statements correctly describes arguments?

A. Smooth muscles control voluntary movements.
B. Both muscles control voluntary movements.
C. All muscles function involuntarily and voluntarily.
D. None of the muscles controls voluntary movement
E. Skeletal muscles control voluntary movement

(viii) During a hot afternoon in Dar es Salaam, a student walking home begins to sweat heavily. Which mechanism is mainly displayed in this situation?

A. Cooling of the body due to vasoconstriction of skin blood vessels
B. Heating the body due to vasoconstriction of skin blood vessels
C. Cooling of the body due to the vasodilation of skin blood vessels
D. Heating of the body due to vasodilation of skin blood vessels
E. Heating of the body due to vasodilation and vasoconstriction

(ix) A cytologist discovered a new cell in a culture. When he tried to diagnose it, he observed that the cell's nucleus lacked a membrane. Suggest the type of this cell.

A. Eukaryotic cell
B. Prokaryotic cell
C. Animal cell
D. Plant cell
E. Virus cell

(x) The current report presented by NEMC Condemned the increase of water pollution caused by domestic and industrial wastes. Suggest the disease that may result from such a condition.

A. Rickets
B. COVID-19
C. Ebola
D. M-Pox
E. Cholera

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2. Match the distinctive features of animals in **LIST A** with their corresponding class in **LIST B** by writing the letter of the correct response beside the item number in the answer booklet(s) provided.

LIST A		LIST B
(i)	They have no pair of antennae.	A. Diplopoda
(ii)	Each body segment has two pairs of walking legs.	B. Crustacea
(iii)	They have two pairs of antennae.	C. Chilopoda
(iv)	They have a leaf-like shape.	D. Monogea
(v)	Each segment has one pair of walking legs.	E. Arachnida
(vi)	They have three distinct body regions called tagmata.	F. Trematoda
		G. Insecta
		H. Cestoidea

SECTION B (54 Marks)

Answer **all** questions in this section.

3. (a) Jablas suffers damage to a part of the brain resulting from a car crash and loses body balance while walking.
   (i) Identify the part of the brain affected
   (ii) State two functions of the part mentioned in 3 (a) (i) above
   (iii) Explain why damage causes loss of body balance

   (b) A farmer notices that his crops bend toward sunlight
   (i) Name the type of response shown by the crops
   (ii) Explain how the response in 3 (b) (i) occurs
   (iii) State the importance of the response in 3 (b) (i) to a crop

4. A researcher concludes that both embryo and environmental factors control seed dormancy. Evaluate this statement by analysing five (5) major factors causing a stated condition and four (4) ways to overcome the condition.

5. A form one student was told that urine is formed and removed through the urinary system. As a Form Four student, explain to a student how the six (6) parts of the urinary system work to achieve this body function.

6. Tabulate the differences between two processes that occur in the mechanism of gaseous exchange in humans. (Give 6 points).

7. One family was quarrelling due to their baby girl being albino while neither of the couple has albinism. The child's father claimed that the mother was responsible for the child being an Albino. Using well-illustrated genetic diagrams, show that both parents are responsible for albinism in their daughter, not just the mother. Use capital "A" as the dominant gene.

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8. “Evidence of the relevance of the theory of evolution is provided from many sources.” With examples, use the knowledge you have obtained from evolution to justify the statement with three (3) points. (Explain your points briefly)

SECTION C (30 Marks)

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

9. Students used a greenhouse to investigate factors affecting transpiration. Evaluate the influence of six (6) factors on the plants in such an investigation.

10. A nursery pupil at Mtakuja English Medium School accidentally swallowed kerosene stored by a cook in a soft drink bottle. The pupil started coughing and vomiting. As a knowledgeable biology student, describe the six (6) precautions you would take while providing first aid to a pupil.

11. A married couple has difficulty conceiving a child and consults a doctor about reproductive system disorders. Create a detailed explanation of six (6) disorders from both the male and female reproductive systems that could be the cause of their problem.

Wabillah Tawfiiq

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