



TANZANIA HEADS OF ISLAMIC SCHOOLS COUNCIL
FORM SIX INTER ISLAMIC MOCK EXAMINATION

BIOLOGY 3A
(ACTUAL PRACTICAL)

(For both School and Private candidates)

Time: 3:20 Hours

Monday 11th March, 2024 a.m.

Instructions

1. This paper consists of **three (3)** questions.
2. Answer all questions.
3. Question one (1) carries twenty (20) marks and the other two questions carry fifteen (15) marks each.
4. All writings should be in blue or black ink, except for diagrams, which must be drawn in pencil.
5. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
6. Write your Examination Number on every page of your answer booklet(s).

1. You have been provided with specimen S. Dissect the specimen in a usual way to fully display the digestive system into the right hand side of the animal.

LEAVE YOUR DISSECTION PROPERLY DISPLAYED FOR ASSESSEMENT

- (a) Draw a well labeled diagram of your dissection.
 - (b) Suggest what will happen to specimen S, if the following parts were removed:
 - (i) Crop
 - (ii) Gizzard
 - (c) Summarize six (6) structural adaptive features of specimen S to its life.
2. You are provided with the sample solution X three tubes, heat sources, test tube rack, test tube holder, chemicals and reagents. Carry out the experiments as directed in the procedures (i) – (vi).
 - (i) Take 2mls of sample solution X and put it into three test tubes label as test tube 1, test tube 2 and test tube 3.
 - (ii) Add three drops of iodine solution into test tube 1 and then shake well.
 - (iii) Add 2mls of 20% sodium hydroxide solution into test tube 2 and then shake the mixture.
 - (iv) Add 2 drops of 1% copper sulphate solution to the mixture in test tube 2 and shake.
 - (v) Add 2mls of Benedict's solution in the test tube 3 then heat the mixture.
 - (vi) Observe what is happening.

Questions:

- (a) Share your intention to other biologists of conducting the experiments using the procedures above.
- (b) How would you report your experiments to your classmate using the table summary below?

Test tube	Observations	Inference
1.		
2.		
3.		

- (c) State one function of food substance(s) identified in 1(a).
- (d) Most of people are not aware about the source of food substance(s) identified in 1(a). As a biologist how would you help them?
- (e) One of the food substances contained in sample solution X is important for child's development.
 - (i) Identify the food substance.

- (ii) State the part of the digestive tract where the digestion of this food substance takes place.
 - (iii) What do you think might be the disorders caused by insufficiency of the food substance identified in e (i) to the children.
 - (f) After ingestion the food undergoes digestion. Identify the food substance(s) that its chemical digestion starts in mouth.
 - (g) As an enzymologist name the enzymes responsible for chemical digestion of food substance(s) identified in (f)
 - (i) In mouth
 - (ii) In stomach
3. You have been provided with specimens **E, F, G, H** and **I** study them carefully and then answer the questions that follow:
- (a) Identify the specimens **E - I** by their common names.
 - (b) Differentiate specimen **E** from specimen **F** by using five observable features.
 - (c) As a taxonomist how would you classify specimen **G** to class level?
 - (d) Justify the statement that “specimen **G** should be preserved for the betterment of agricultural activities.” Give four (4) points.
 - (e) Identify the type of germination taking place in specimen **H**.
 - (f) Show how the specimen **I** is able to survive to its environment. Give five points.

Wabillah Taufiq