BIOLOGY PRE-MOCK PAPER TWO EXAMINATION 2023

TIME 2HOURS

ALL QUESTIONS ARE COMPULSORY

1. You are provided with solution A. Carry out the tests below to find out the foods it contains. (10 marks)

Test	Observation	Deduction
(i) To 1cm^3 of solution A in a test tube add 3 drops of iodine solution		
(ii) To 1cm^3 of A add 1cm^3 of sodium hydroxide then copper sulphate solution drop wise while shaking.		
(iii) To 1cm^3 of A in a boiling tube, add 1cm^3 of Benedict's solution.		
(iv) To 1cm^3 of A add 1cm^3 of hydrochloric acid and warm. Cool. Add 1cm^3 of sodium hydroxide then 2cm^3 of Benedict's solution and boil.		
(v) To 1cm^3 of DCPIP in a test tube add five drops of solution A and shake.		

(a) List the food substances present in solution A (2 marks)

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(b) What was the role of the following reagents in test (iv) above?

(i) Hydrochloric acid (2 marks)

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(ii) Sodium hydroxide (2 marks)

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(c) What is the biological significance of the food substances observed in the above experiment? (1 mark)

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(d) List any three sources of the food substance identified in (a) above. (3 marks)

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2. You are provided with specimens M, N, O, P and Q which are plant parts

(a) Place the specimen P on the table with its lower surface up, make a well labeled drawing and state your magnification. (7 marks)

(b) Give three structural differences between specimens N and Q (3 marks)

Specimen N	**Specimen Q**

(c) Giving reasons state what type of leaf is of specimen M?
Leaf type of M (1 mark)
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Reasons: (2 marks)
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(d) State giving two reasons whether specimen M is from a dicotyledonous plant or monocotyledonous plant.
M is from: (1 marks)
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Reasons: (2 marks)
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(e) Using the characteristics in (d) (i), construct a dichotomous key to identify the specimens (4 marks)

3. You are provided with specimens R and S obtained from the same animal. Examine them carefully and answer the questions that follow.

(a) (i) Identify the specimen R and S (2 marks)

R……
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S……
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(ii) Where on the bird has each of the specimens been obtained? (2 marks)

R……
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S……
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(b) State the functions of the specimens (2 marks)

R
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S……
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(c) Make a well labeled drawing of specimen R (5 marks)

(d) (i) Put 5 drops of water on specimen R and observe carefully. Describe what happens. (1 mark)
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(ii) What is the significance of the property of R shown above, to the animal from which it was obtained? (1 mark)
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(e) (i) State four differences between specimen R and S (4 marks)
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(vi) State three similarities between specimens R and S (3 marks)

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Success wishes from your own professor GIDEON ALEXANDER and please stay safe, remain focused for a rich blissful life