

Name: ..... Index No: .....

Candidate's signature.....

Date.....

## **KAKAMEGA NORTH SUBCOUNTY JOINT EXAMINATIONS KCSE Trial Exam**

*231/3  
**BIOLOGY**  
**PAPER 3(Theory)**  
**JULY 2018**  
**1 ¾ Hours***

### **INSTRUCTIONS TO CANDIDATES**

Write your name, Index Number in the spaces provided above.

Answer **All** questions in the spaces provided.

You are required to spend the first 15 minutes of the 1¾ hours allowed for this paper reading the whole paper carefully before commencing your work.

Answers **Must** be written in the spaces provided.

Additional pages must not be inserted.

Irrelevant pages **Must Not** be inserted.

Irrelevant information and incorrect spelling of technical terms will be penalized heavily.

### **FOR OFFICIAL USE ONLY**

<u>QUESTION</u>		<u>CANDIDATES SCORE</u>
1	14	
2	15	
3	11	
<b>TOTAL</b>	40	

*This paper consists of 6 printed Pages*

*Candidates should check the question paper to ensure that all the pages are printed as indicated  
and no questions are missing*

1. Take 2 clean test tubes and into each add  $5\text{cm}^3$  of dilute hydrogen peroxide. Label the test tubes as **A** and **B**. Cut 2 cubes of Irish potato measuring about  $1\text{cm}^3$  each. Boil one cube in a boiling tube with some water for about 5 minutes. Drop the boiled cube into test tube **A** and unboiled cube into test tube **B**.

**State your** observations.

(a) Test tube **A**

(1mark)

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Test tube **B**

(1mark)

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.....

(b) **Account for** your observations in:

Test tube **A**

(2marks)

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Test tube **B**

(2marks)

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.....

(c) Take a small amount of substance **Z** provided and add to it  $2\text{cm}^3$  of sodium hydrogen carbonate.

(i) **State** your observations

(1mark)

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(ii) **Which process** in the body is illustrated above?

(1mark)

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.....

(iii) **State** the part of the body where the process takes place.

(1mark)

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(iv) **What** is the significance of the process?

(1mark)

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(d) Put 2cm<sup>3</sup> of liquid labelled as **C** into a test tube. Squeeze some juice from specimen **X** into a beaker. Draw some of the juice into a dropper. Add 3 drops of the juice into the test tube with solution **C**.

(i) State your observation. (1mark)

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ii) **State** the part of the human body where the process demonstrated above occurs and the enzyme that carries out the process.

Part of body (1mark)

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Enzyme (1mark)

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(iii) **Which** gland produces the enzyme stated in (ii) above? (1mark)

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(iv) **Which** hormone stimulates the production of the enzyme stated in (ii) above? (1mark)

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2. Study the photographs shown below then answer the questions.



(a) Suggest the identity of substance labeled **P** on **S<sub>1</sub>**. (1mark)

**R<sub>1</sub>**

Mode of nutrition..... (1mark)

Reason for mode of nutrition (1mark)

**S<sub>1</sub>**

Mode of nutrition..... (1mark)

Reason for mode of nutrition (1mark)

(c) Name parts labeled **S<sub>2</sub>** and **T**.

**S<sub>2</sub>**..... (1mark)

**T**..... (1mark)

(d) Name structures responsible for reproduction in **S<sub>1</sub>** ..... (1mark)

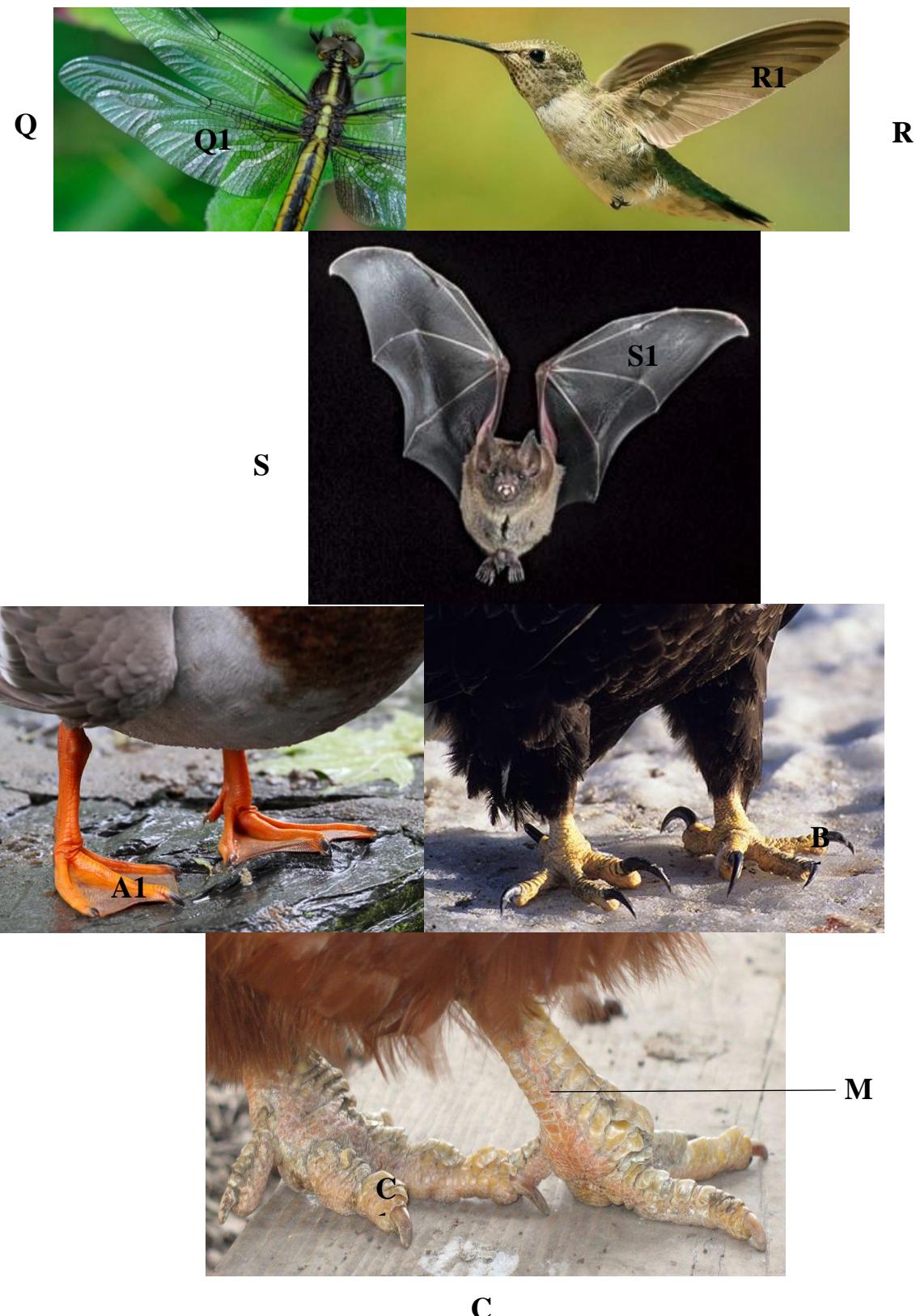
(e) Explain the importance of organism **S<sub>1</sub>** in nature. (1mark)

(f) Name generations **M** and **N**

**M**..... (1mark)

**N**..... (1mark)

3. Study photographs shown below then answer the questions.



(a) ***State*** the type of evolution represented by structures **Q<sub>1</sub>**, **R<sub>1</sub>** and **S<sub>1</sub>**. (1mark)

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(b) ***Explain*** the type of evolution identified in (a) above. (1mark)

.....

(c) **Give** the evolution term used to describe structures:

(i) **Q<sub>1</sub>, R<sub>1</sub> and S<sub>1</sub>.** (1mark)

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(ii) **A<sub>1</sub>, B<sub>1</sub> and C<sub>1</sub>.** (1mark)

d). **What** type of evolution is illustrated by the limbs (**A<sub>1</sub>, B<sub>1</sub> and C<sub>1</sub>**)? (1mark)

e) (i) **Name** class for each **Q, R** and **S.**

**Q** ..... (1mark)

**R** ..... (1mark)

**S** ..... (1mark)

(ii) **Give two** observable reasons for your answer for class **S.** (2marks)

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(f) (i) **Suggest** the diet of animals **B** and **R.**

**B** ..... (1mark)

**R** ..... (1mark)

(ii) How is beak of animal **B** adapted to its function? (2marks)

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