

Name: Index No:

Candidate's signature.....

Date.....

Muungano KCSE Trial Exam*231/3****BIOLOGY****PAPER 3(Practical)**July 2017**1¾ 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.

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<u>QUESTION</u>		<u>CANDINDATES SCORE</u>
1	12	
2	12	
3	16	
TOTAL		

*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***Turn Over**

1. You are provided with a jelly-like substance labeled **P** on a tile, *Iodine solution (Q1)*, *Benedict's solution (Q2)*, *Sodium hydroxide solution (Q3)* and *Copper (II) Sulphate solution (Q4)*.

(a) Using the reagents provided carry out food tests on the jelly-like substance labeled **P**
(12mks)

<i>Food Substance</i>	<i>Procedure</i>	<i>Observation</i>	<i>Conclusion</i>

(b) **Identify** the classes of foods present in substance **P**. (2mks)

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Turn Over

2. The following are leaves of different species of plants. Study them then answer the questions

Q1



Q2



Q4



Q3

Q5



Q6

Q7



Q8



Q9

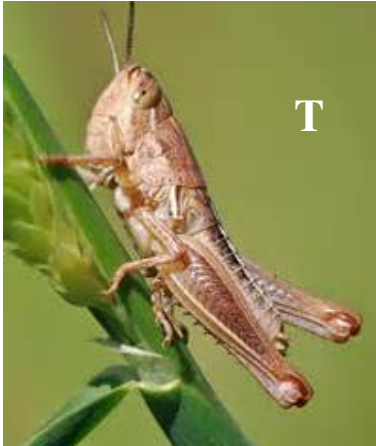
Use the dichotomous key shown below to *identify* the plants.

- 1 (a) Simple leaf Go to 2
 (b) Compound leaf Go to 5
2. (a) Leaf parallel veined **Napier**
 (b) Leaf net veined Go to 3
3. (a) Leaf lobed..... **Castor oil**
 (b) Leaf unlobed Go to 4
4. (a) Leaf with smooth margin..... **Bougainvillea**
 (b) Leaf with serrated margin **Hibiscus**
5. (a) Leaflets arising from same point at tip of petiole..... Go to 6
 (b) Leaflets arising from different points along a common stalk..... Go to 7
6. (a) Leaflets triangular narrow base and broad end..... **Oxalis**
 (b) Leaflets broad in the middle and narrow at both ends..... **Crotalaria**
7. (a) All leaflets attached to one main stalk..... **Mexican marigold**
 (b) Leaflets attached to several small stalks arising from main stalk..... Go to 8
8. (a) Leaflets rounded at end and no terminal leaflet..... **Flamboyant**
 (b) Leaflets pointed at end. Terminal present **Jacaranda**
- (a) Use the Dichotomous key given above to identify all the specimen given. Show the steps followed to arrive to the identity. (9mks)

<i>Plant</i>	<i>Steps followed</i>	<i>Identity</i>
<i>Q1</i>		
<i>Q2</i>		
<i>Q3</i>		
<i>Q4</i>		
<i>Q5</i>		
<i>Q6</i>		
<i>Q7</i>		
<i>Q8</i>		
<i>Q9</i>		

Turn Over

(b) Photographs **T** and **Q** show organisms of the same species. Study the photographs then answer the questions.



(i) **Name** the stage represented by photograph **T**. (1mk)

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Give a reason for your answer in a(i) above. (1mk)

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(ii) **Classify** organism **Q** according to its phylum and **give a reason** for your answer.

Phylum (1mk)

.....

Reason (1mk)

.....

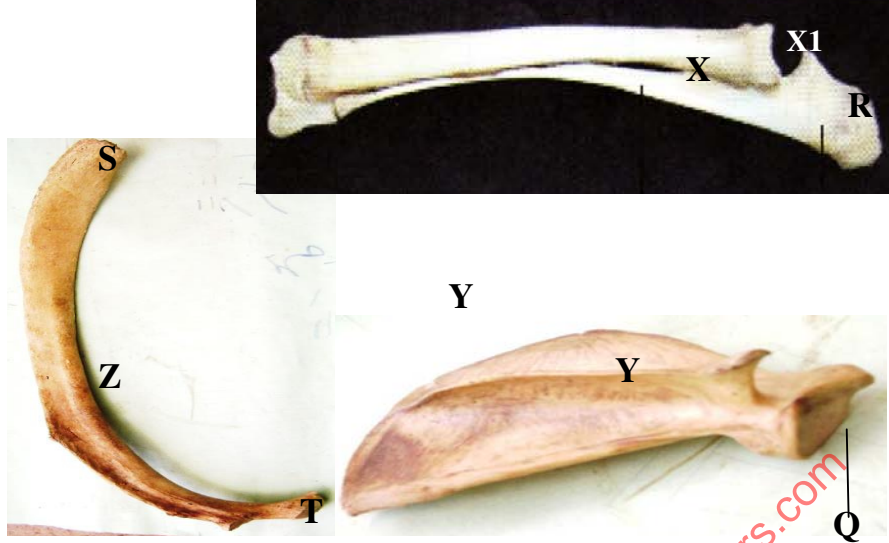
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(iii) **Name** structure labeled **W**. (1mk)

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3. Below are photographs of tissues from a mammal. Study them and answer the questions.



(a) **Identify** the three bones labeled X, Y and Z (3mks)

X

Y

Z

(b) **Name** parts Q, R and Y₁. (3mks)

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(c) (i) **Name** the bone that link bones X and Y at X₁ and Q. (1mk)

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(ii) **Name the type of joint** formed between the bone you named in c(i) above and bone Y. (1mk)

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(d) **Give** the function of parts labeled X₁ and Y₁. (2mks)

X₁

Y₁

(e) **Name** the bone which articulates with bone Z at point;

(i) S (1mk)

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(ii) T (1mk)

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Turn Over