

PCEA JITEGEMEA HIGH SCHOOL

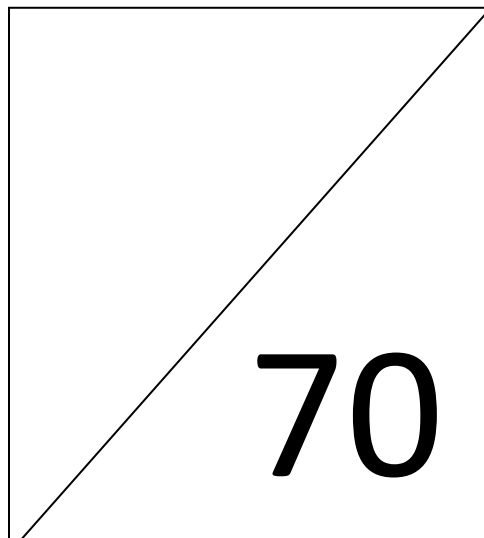
**BIOLOGY
FORM 1
MARCH 2017
TERM 1
TIME : 2 HRS**

NAME:.....CLASS:.....TARGET:.....

INSTRUCTIONS

- 1. answer all questions in this paper**
- 2. You will be penalized for recording irrelevant information and incorrect spelling especially for technical terms. Biological spellings must be correct.**

For examiners use only



1. What does the term biology mean? (1 mk)

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2. (a) Name two major branches of biology. (2 mks)

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(b) Explain what each of the above 2(a) means. (2 mks)

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3. Name the branches of biology that deals with the following: (3 mks)

(i) scientific study of insects

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(ii) study of inter relationships of living things and their environment

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(iii) study of inheritance and variation

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4. In collection of specimens name the apparatus used for: (4 mks)

(i) Sucking small animals from rock surface and barks of trees

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(ii) attracting and trapping small animals including rats

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(iii) catching crawling animals

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(iv) picking up small animals

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5. State two main functions of the microscope. (2 mks)

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6. Mosses, ferns and acasia tree belong to the kingdom plantae, what main characteristics do they all have in common that allow them to be grouped in this kingdom. (1 mk)

7. State five main differences between electron microscope and light microscope.(5 mks)

Electron Microscope	Light Microscope

8. Distinguish between permanent slides and temporary slide. (2 mks)

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9. Differentiate between **resolving power** and **magnifying power** of a microscope. (2 mks)

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10. What is binomial nomenclature? (1 mk)

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11. (a) State three rules that should be followed when naming organism scientifically. (3 mks)

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(b) Why is it necessary to classify living things? (3 mks)

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12. Explain why the following processes are important in living organisms;

(a) reproduction (2 mks)

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(b) excretion (2 mks)

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(c) respiration (2 mks)

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(d) locomotion

(2 mks)

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13. Differentiate between plants and animals.

(5 mks)

Plants	Animals

14. A drawing of 5 cm in length was made of a beetle whose actual length was 1cm. calculate the magnification of the drawing. 2mks

15. Name the five kingdoms in which organisms are placed.

(5 mks)

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16. Classify a maize plant using the taxonomic units below.

(8 mks)

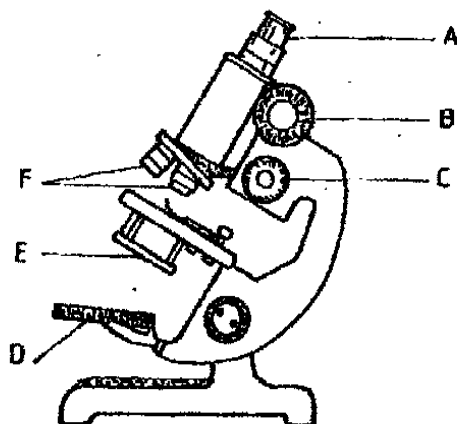
Taxonomic unit	Maize plant
Kingdom	
Division	
Class	
Order	
Family	
Genus	
Species	
Scientific Name	

17. Complete the table below

4mks

eye piece less magnification	objective lens magnification	total magnification
X10	X20	
X15		X200
	X45	X200
X5	X40	

18. Study instrument below and answer the following questions.



(a) Name the parts labelled A, B, C, D, E and F.

(6 mks)

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(b) State the functions of the parts labelled E and F. (2 mks)

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(c) Give the formula used to calculate magnification in a light microscope. (1 mk)

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