

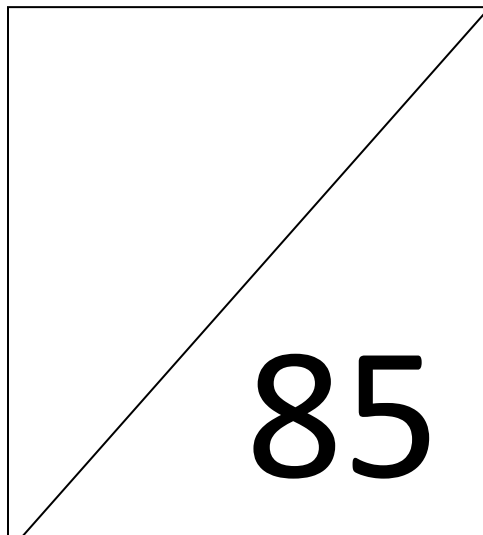
BIOLOGY
FORM 1 MARCH 2016
TERM 1
TIME : 2 HRS

NAME:.....CLASS:.....ADM NO:.....

INSTRUCTIONS

- 1. answer all question sin this paper**
- 2. You will be penalized for recording irrelevant information and incorrect spelling especially for technical terms.**

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)
.....
.....
- (b) Explain what each of them means. (2 mks)
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.....
.....
3. Name the branches of biology that deals with the following: (4 mks)
- (i) scientific study of insects
.....
- (ii) study of inter relationships of livings and their environment
.....
- (iii) study of inheritance and variation
.....
- (iv) study of birds
.....
4. In collection of specimens name the apparatus used for: (4 mks)
- (i) Sucking small animals from rock surface and barks of trees
.....
- (ii) attracting and trapping small animals including rats
.....
- (iii) catching crawling animals
.....
- (iv) picking up small animals
.....

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)

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7. State one important scientific contribution made to science by **Carolus Linnaeus**. (1 mk)

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

Electron Microscope	Light Microscope

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

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

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11. What is binomial nomenclature?

(1 mk)

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12. (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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13. 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) irritability

(2 mks)

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.....
(e) locomotion

(2 mks)

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14. Differentiate between plants and animals.

(5 mks)

Plants	Animals

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

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

(5 mks)

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

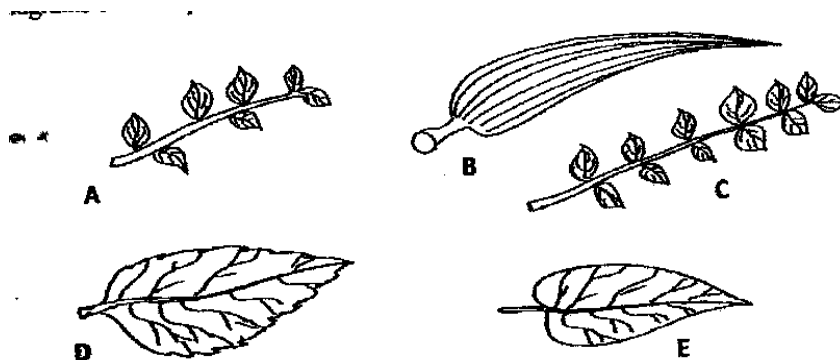
(8 mks)

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

18. Complete the table below

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

19. The diagram below represents leaves obtained from different plants species.



Using the observable feature only name two types of: (8 mks)

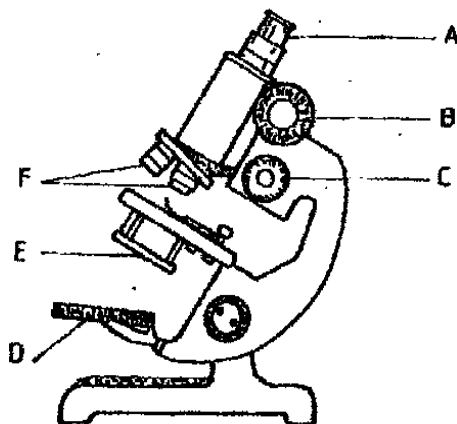
(i) leaf venations

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(ii) arrangement of leaflets

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(iii) leaf types

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(iv) leaf margins

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20. 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)

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

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