

GATTU SECONDARY SCHOOL, P.O. BOX 327 -- 01030, GATUNDU.
FORM 3 BIOLOGY. END OF TERM I EXAMINATION 2015.

NAME: _____ CLASS: _____ ADM: _____

INSTRUCTIONS:

Answer all the questions.

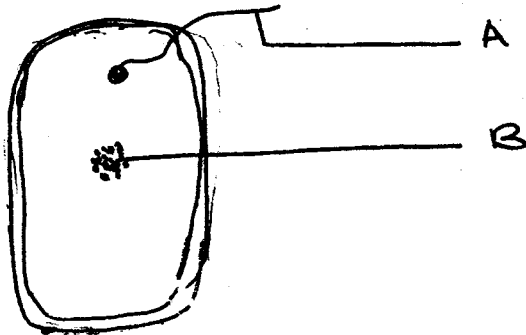
1. Give a classification of the housefly by filling in the table below. (3mks)

Kingdom	
Phylum	
Class	

b) Give 3 characteristics of the class the above organism belongs. (6mks)

- i) _____
- ii) _____
- iii) _____

2. Study the following diagram that represent a given organism.



i) Label parts (2mks)

A _____

B _____

ii) What is the name given to cells with structure B? (1mk)

iii) In which kingdom does the above organism belong to _____ (1mk)

3. State 3 external differences between chilopoda and diplopoda. (6mks)

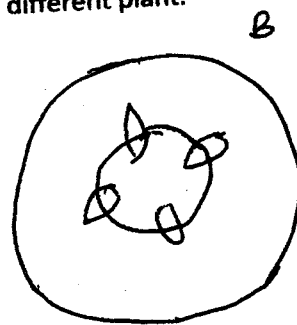
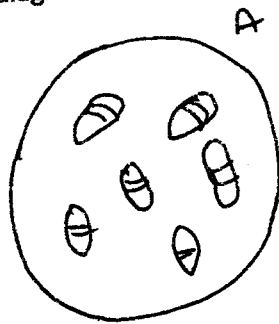
CHILOPODA	DIPLOPODA
(i)	
(ii)	
(iii)	

4. Besides abdomen, name the other body parts of member of Arachnida (1mk)

5. Give 2 reasons why plants do not require specialized excretory organs. (4mks)

6) Explain what happens in humans when concentration of Glucose in the blood decreases below the normal level. (4mks)

7. The diagrams below represent T.S. of stems obtained from different plant.



Name the class of plant from which the sections were obtained.

(3mks)

A-Class

Reason

B - Class

3mks

Reason

8. Giving a reason in each case, name the class to which each of the following organisms belong. (1mk)

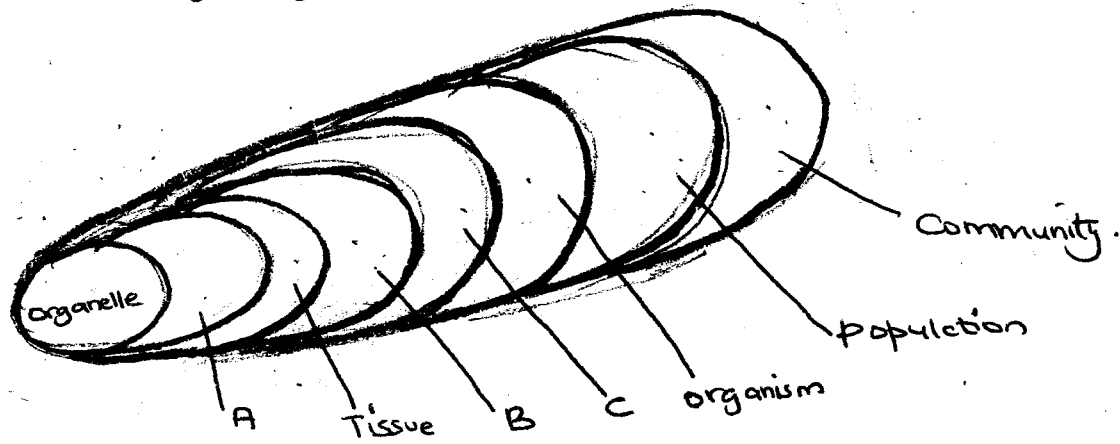
Bean plant (i) Class _____ (2mks)

ii) Reason _____

Bat Class _____ (1mk)

ii) Reason _____ (2mks)

9. Use the following drawing to answer the questions below



10a) Identify each of the sectors marked.

(3mks)

A

B

C

b) Define the sector marked A

(1mk)

c) Give an examples of part labeled C

(1mk)

11. A student in Gatitu High School picked an organism. After examining it carefully, she formed an opinion that the organism belonged to class Arachnida. She then classified it as follows.

i) Kingdom: _____

ii) Phylum; Arthropods

iii) Class; Arachnida

i) Name the Kingdom _____ (1mk)

ii) Identify one mistake in her classification.

(1mk)

iii) List 2 observable characteristics she used in placing the organism in class Arachnida **4mks**

i) _____

ii) _____

12. An experiment was carried out to investigate haemolysis of human red blood cells. The red blood cells were placed in different concentration of sodium chloride solution. The percentage of haemolysed cells was determined. The results were as shown in the table below;

Salt conc g/100cm	0.33	0.36	0.38	0.39	0.42	0.44	0.48
Red blood cells haemolysed	100	91	82	69	30	15	0

a) On the graph provided, plot a graph of haemolysed red blood cells against concentration **(6mks)**

ii) At what concentration of salt solution was the proportion of haemolysed cells equal to non-haemolysed cells. **(2mks)**

iii) State the percentage of cells haemolysed at salt concentration of 0.45% **(2mks)**

b) Account for the results obtained at
i) 0.33 percent salt concentration **(3mks)**

ii) 0.48 percent salt concentration **(3mks)**

c) What would happen to the red blood cells if they were placed in 0.50 percent salt solution?
(3mks

d) Explain what would happen to onion epidermal cells if they were placed in distilled water.
(3mks

