

NAME \_\_\_\_\_ ADMNO \_\_\_\_\_ CLASS \_\_\_\_\_

**GATITU SECONDARY SCHOOL**

**BIOLOGY, FORM THREE END OF TERM ONE EXAM**

**Attempt ALL questions in section A AND B**

**Choose 1 question in section C**

i) Fill in the table below (8marks)

Organism	kingdom	Phylum/ division	class
i)Honey bee			
ii)Maize Plant			
iii)Rat			

ii) Give the differences between mocots and dicots on the following aspects (8marks)

Aspect	Dicotyledonae	monocotyledonae
Veins		
Vascular bundles on stem		
Floral parts		
Root system		

2. List three external features that distinguish arthropods from others organism (3marks)

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3. State three features that a grasshopper crab, a spider and millipede have in common (3marks)

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5.a) state three characteristics of monera that are not found in other kingdom (3marks)

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b) Name the class to which a termite belong (1mark)

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6. Briefly explain the role of the following in homeostasis (6marks)

i) A.D.H

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iii) Aldosterone

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iv) Glucogen

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7. State three differences between aerobic and anaerobic respiration (6marks)

Aerobic	Anaerobic

b) Write a word equation to represent aerobic respiration of glucose (2marks).

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8. Briefly explain why fresh water animals excrete mainly ammonia while terrestrial ones excrete mainly urea in their urine (4marks)

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9. Name the function of the liver which (3marks)

a) Assist the function of a digestive enzyme

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b) Enables the body to get rid of excess amino acid

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c) Prevent the body from being poisoned

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### SECTION B

10. a scientist grew some cereals in a field. During the course of one day she took several plants every four hours and measured the amount of sugar in the leaves. The sugar concentration expressed as a percentage of the dry mass of the leaves is given below

Time of day	Sugar concentration
4.00 am	0.45
8.00am	0.65
12.00 noon	1.75
4.00 pm	2.00
8.00 pm	1.40
12.00 midnight	0.50
4.00 am	0.45

a) Plot the above data on a graph i.e. sugar concentration against time (5marks)

b) What was the probable concentration of sugar in the leaves at;

i) 10.00 am (2marks)

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ii) 2.00 am (2marks)

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c) At what time of the day is sugar probably at maximum in the leaves (2marks)

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