**NAME: --------------------------------------------------------------------- ADM.No:--------------- CLASS: --------------**

**KAHUHO UHURU HIGH SCHOOL**

**FORM 3: BIOLOGY**

**MID TERM EXAMINATION**

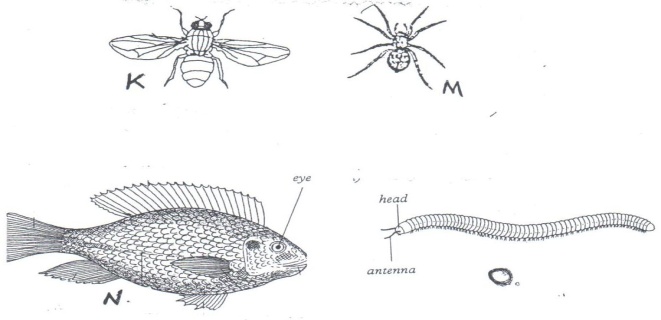
**TERM 2 2016**

**TIME: 1 ½ HOURS**

**INSTRUCTION**

***Answer ALL questions in this paper in the spaces provided***

1. The photographs below represent different types of animals. Study them carefully and answer the questions that follow.



* + - 1. State **two** observable differences between K and M. (2mks)
      2. Classify specimen M into the following taxa giving reasons for each case.

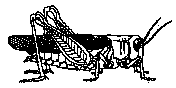
1. Phylum (1mk)

Reasons (3mks)

1. Class (1mk)
2. Reasons (3mks)
   * + 1. (i) Name the class to which the specimen N belongs. (1mk)
     1. Give **three** reasons for your answer in (d) (i) above. (3mks)
3. (a) Define the following terms. (2marks)
4. Population
5. Community

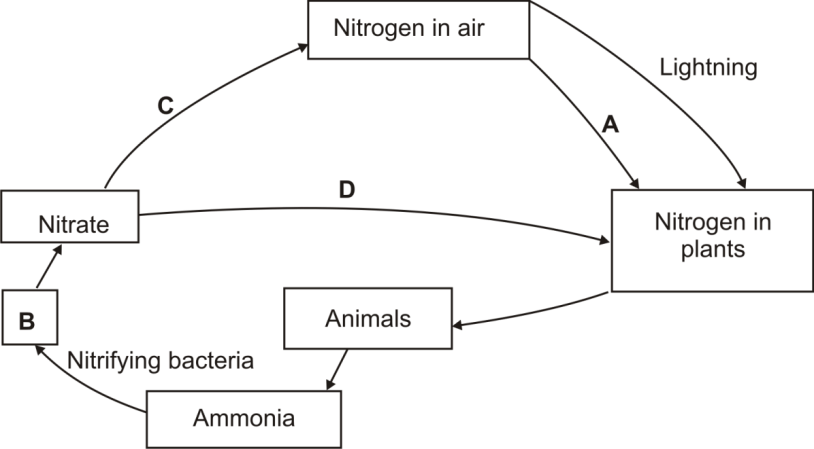
(b) Name a method that could be used to estimate the population size of the following organisms.

1. Fish in a pond. (1mark)
2. Black jack in a garden. (1mark)
3. State **three** differences between Chilopoda and Diplopoda. (3marks)
4. The diagram below represents a member of the kingdom Animalia.



1. Name the phylum to which the organism belongs. (1mark)
2. Using observable features in the diagram, give three reasons for the answer in (i) above. (3marks)

1. Below is a diagram of nitrogen cycle. Study it and answer the questions that follows.



1. Name the processes represented by: A and B ( 2marks)
2. Name the compound represented by B (1mk)
3. Name the group of organisms represented by C (1mk)

(d) (i) Identify the class of the plants to which the above cycle takes place (1mk)

(iii)Name the part of the plant where process A takes place (1mk)

6. A certain experiment was performed to demonstrate the effect of sweating on human body temperature. Boiling tubes A and B were filled each with water their initial temperatures recorded. This was repeated after every 5 minutes. The surface of Tube A was continuously wiped with a piece of cotton wool which had been soaked in methylated spirit. The results are as shown below.

**Time (Min) Temperature OC in tubes**

A B

0 80 80

5 54 67

10 40 59

15 29 52

20 21 47

25 18 46

1. On the same axis, plot graphs of water temperature against time (min) (8mks)
2. Find the rate of cooling in test tube A (1mk)
3. Why was tube B included in the set up? (1mk)
4. Name two ways through which heat is lost in tube B (2mks)
5. State the expected results if tube A was insulated (1mk)
6. Name the structures in the following organisms that would insulate heat loss
7. Birds (1mk)
8. Mammals (1mk)
9. Name any two receptor cells on the skin of man (2mks)
10. Describe the response of hair on the skin during cold weather (3mks)