ALLIANCE HIGH SCHOOL

BIOLOGY FORM ONE

END OF TERM I 2016

TIME: 2 HOURS.

NAME:_____ **ADM.NO:**_____ **CLASS:**____

Answer ALL the questions in the spaces provided.

1. **Homo *Sapiens*** are human beings which belongs to the order primate and family Hominidae. Use the biological knowledge of classification to fill the blanks below for a student of form one. [3 mks]

   Kingdom _____
   Phylum _____
   Order _____
   Family _____
   Genus _____
   Specie _____

2. State the branch of biology which deals with how characteristics and qualities of parents are given to the children in all living organisms._____ [1 mks]

3. Give the branches in biology in which the principles below are found. [2 mks]

   i) Binomial nomenclature _____

   ii) Natural selection _____

4. Under which of the following microscope magnification would one see a large part of the specimen X40, X400. Give a reason. [2 mks]

_____

_____

_____

_____

5. Explain the meaning of the following branches of Biology. [5 mks]

   i) Ecology

_____

_____

   ii) Mycology

_____

_____

iii) Biotechnology

iv) ornithology

v) Entomology

6. Identify the parts of light microscope which carry out the functions described below. [3 mks]

i) Reflect light from source to condenser. _____

ii) Make rough focus of specimen.

_____

iii) Hold mounted glass slides during viewing._____

7. List down the **four** aims of studying Biology. [4 mks]

i) _____

ii) _____

iii) _____

iv) _____

8. State and explain briefly **eight** characteristics in living organisms. [8 mks]

9. State three differences between a plant and animal cell. [3 mks]

10. Define the term species as used in classification. [1 mks]

_____

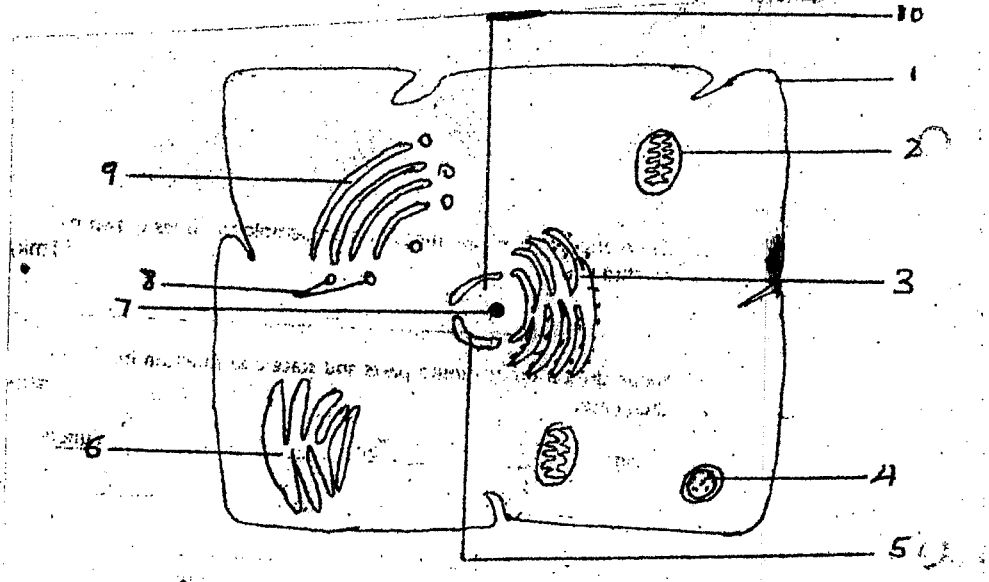
_____

11. State two functions of a microscope. [2 msk]

1) _____

2) _____

12. Below is a diagram of a generalized animal cell. Use it to answer the questions that follow.



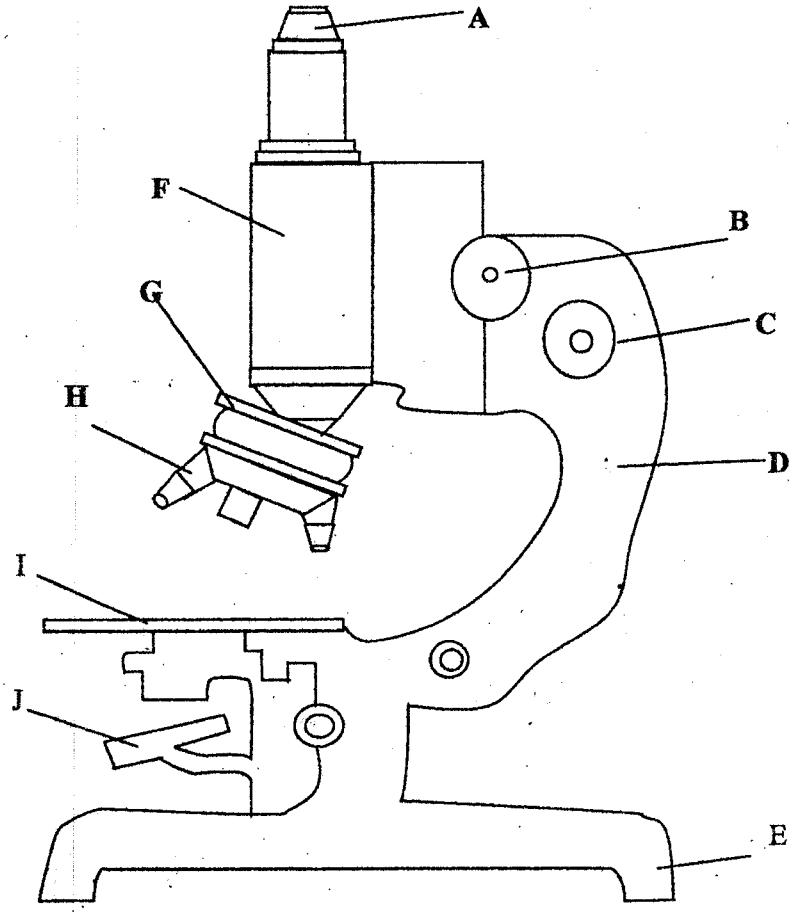
a) Name the parts labeled 1 – 10. [5 mks]

1. _____
3. _____
5. _____
7. _____
9. _____
10. _____

b) State the function of:

1. _____
2. _____
3. _____

13. a) Below is a diagram of a microscope. Label the parts. [10 mks]



b) State the functions of the parts labeled above. [10 mks]

A _____

_____

B _____

_____

C _____

_____

D _____

_____

E _____

F _____

G _____

H _____

I _____

J _____

14. Define Biology. [1 mk]

15. a) Define the term classification as used in biology. [1 mk]

b) Give **three** reasons why classification is important. [3 mks]

16. State **five** external features you would use to classify: [5 mks]

a) Plants _____

b) animals _____

c) Zedonk is an offspring between a zebra and a donkey. Why would it not be fertile? [1 mk]

17. Name **four** structures that are found in plant but not in animal cell. [4 mks]

18. When preparing microscope slides, several steps are taken. List **four** steps used to prepare a slide. [4 mks]

19. a) Define a cell. [1 mk]

b) State functions of the following organelles: [3 mks]

i) mitochondrion

ii) Ribosome

iii) Nucleus

20. The scientific name ***BIDEN PILOSA*** is not written according to Binomial system of scientific naming.

a) State **two** mistakes in writing of the scientific name above. [2 mks]

b) Identify the specific name and generic name of the plant. [2 mks]

21. Write down the **seven** taxa of classification in ascending order. [7 mks]

22. i) Give **two** examples of cell organelles which are not visible through the light microscope but are visible through the electron microscope. [2 mks]

ii) Briefly explain why these organelles are only visible through the electron microscope. [2 mks]