**MURURIA SECONDARY SCHOOL**

**FORM 1 BIOLOGY MID TERM3 2014 EXAM**

**NAME: ……………………………ADM.NO. …………CLASS:……**

**Answer all questions.**

1. a. Discuss the role of each of the following structures of the leaf during photosynthesis. 3 mks

i. Xylem vessels

ii. Chlorophyll

iii. Guard cells

b. Illustrate by means of a simple labeled diagram the structure of a chloroplast. 5 mks

2. a. What is an enzyme. 1 mk

b. State the collective name of the enzymes which works on the following. 3 mks

i. carbohydrates –

ii. proteins –

iii. lipids –

3. Distinguish between osmosis and active transport. 2 mks

4. a. Name the carbohydrate that is

i. Stored in plants seeds –

ii. stored in mammalian muscles –

iii. Most abundant human blood –

b. What is bio chemistry. 2 mks

c. List down five functions of lipids in living things. 5 mks

5. a. Name the building blocks of proteins. 1 mk.

b. Proteins are said to be amphoteric, explain. 2 mks

6. a. What is cell physiology. 1 mk

b. List down four properties of the cell membrane. 4 mks

c. What is the significance of diffusion to plant pollination. 2 mks

d. How does surface area to volume ratio affect the rate of diffusion. 2 mks

7. What is the function of the following parts of a cell

i. The cell membrane. 1 mk

ii. Centrioles 1 mk

8. Explain the following terms. 3 mks

i. classification

ii. taxonomy

iii. binomial nomenclature

9. What is the significance of the following as characteristics of living things. 4 mks

i. Respiration

ii. Excretion

10. Name and explain any three factors that affect enzyme controlled reactions. 6 mks