KUHS.

FORM TWO BIOLOGY

TERM THREE- YR 2011

Name………………………………………………….class…………………….

(*All questions should be answered in the spaces provided*.)

Total marks- 25

1) A student observing plant cells under low Power microscope estimated the field of view to be 3.6mm. This length was occupied by 6 epithelium cells.  
  
(i) Convert 3.6mm to micrometer. (µm) (1mk)   
  
  
  
(ii) Calculate the size of one epithelium cell in micrometers. Show your working. (2mks)  
  
  
  
  
2) Name the cell organelles that perform the following functions: (3mks)  
  
(a) synthesis proteins  
  
(b) transport cell secretions  
  
(c ) Control material entering and leaving the cell.   
  
3) Name the type of vitamins you would recommend for patients with the following symptoms. (3mks)  
  
(a) Poor sight vision

(b) Bleeding gums  
  
(c ) Excessive bleeding after injury  
  
4) (a) State two types of a trio ventricular valve. (2mks)  
  
  
(b) Name the valve that is found between the aorta and the left auricle. (1mk)  
  
  
  
  
  
  
5) (a) Define the term glycolysis (1mk)

(b) Name the chemical substance that is produced in muscles of a mammal during anaerobic respiration. (1mk)

6) (a) Name the pigment found in the malpighian layer of the skin. (1mk)

7) State two protective functions of the skin (2mks)

8) Name the forces involved in the movement of water and mineral salts up the plant. (4mks)

9) In which form is oxygen transported in the blood? (1 mark)

(b) Why do plants not take in oxygen during the day although they need it for respiration?(1 mark)

10) The oxidation state of a certain food is represented by the chemical equation shown below.

2C3H2O2N + 6O2 (NH)2CO + 5CO2  + 5H2O

(a) Calculate the respiratory quotient (RQ) of the food substance. (2 marks)

(b) Identify the food substance. (1 mark)

……………………………………….End……………………………………………………………………………………………….