

**DATE DONE…………………………………………..**

**INVIGILATOR………………………………………..**

**DATE RETURNED……………………………………**

**DATE REVISED…………..…………………………..**

**BIOLOGY**

**FORM ONE**

**CAT 1 TERM 3 2017**

**TIME: 2 HOURS**

**INSTRUCTIONS**

* Write your name, class, class number and admission number in the spaces provided.
* Answer all questions in the spaces provided.
* Do not insert an extra paper in the question paper.

**FOR EXAMINER’S USE ONLY**

|  |  |  |
| --- | --- | --- |
| **QUESTIONS** | **SCORE** | **CANDIDATE’S SCORE** |
| 1 - 16 | 60 |  |
| **TOTAL SCORE** |  |  |

1. Define the term diffusion. (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………

1. Study the diagram below and use it to answer the questions that follow.
2. Name the structure drawn below. (1mk)

…………………………………………………………………………………………

1. State the function of the structure drawn. (2mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. Name the parts labelled X and Y. (2mks)

X ………………………………………………………………………………………..

Y ………………………………………………………………………………………..

1. State three reasons why Biology is one of the subjects in secondary schools in Kenya. (3mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. Identify the branch of Biology that deals with;
2. Study of plants. (1mk)

………………………………………………………………………………………….

1. Study of animals. (1mk)

…………………………………………………………………………………………

1. Study the inter-relationships of living organisms and their environment. (1mk)

………………………………………………………………………………………..

1. Form One students in Nyabururu Girls National School set up an experiment as shown below. Study it carefully and use it to answer the questions that follow.
2. Which process is taking place in the experiment above? (1mk)

…………………………………………………………………………………………..

1. (i) Which gas is produced in the experiment? (1mk)

…………………………………………………………………………………………

(ii)How would the gas named in b(i) above be tested. (1mk)

……………………………………………………………………………………………………………………………………………………………………………………

1. State the functions of the following in the experiment.
2. Glass funnel (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. Wooden block (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. Sodium hydrogen carbonate. (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. State any two factors that affect the process taking place in the experiment set up above. (2mks)

(i)………………………………………………………………………………………

(ii)………………………………………………………………………………………

1. List four professional occupations that biology can help one to enter. (4mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. List four stages of photosynthesis and in each, state where it occurs. (4mks)

|  |  |
| --- | --- |
| Stage  | Where it occurs |
| (i) |  |
| (ii) |  |

1. Draw a well labeled animal cell as seen under the light microscope. (4mks)
2. Differentiate between plants and animals using the guidelines in the table below. (4mks)

|  |  |  |
| --- | --- | --- |
|  | Plants  | Animals  |
| Nutrition  |  |  |
| Response to stimuli |  |  |
| Movement  |  |  |
| Excretory organs  |  |  |

1. What are the functions of the following parts of the microscope?
2. Eye piece

………………………………………………………………………………………………………………………………………………………………………………

1. Condenser

………………………………………………………………………………………………………………………………………………………………………………

1. Diaphragm

………………………………………………………………………………………………………………………………………………………………………………

1. The diagram below illustrates osmosis. Study it carefully and use it to answer the questions after it.
2. Name the parts labeled D. (1mk)

…………………………………………………………………………………………

1. Which molecules move in the illustration? (1mk)

……………………………………………………………………………………………………………………………………………………………………………………..

1. Why is osmosis considered a special type of diffusion? (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. State three properties of the cell membrane. (3mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. Name two cell organelles found in plant cell but absent in animal cell and for each state its function. (4mks)

|  |  |
| --- | --- |
| Organelle  | Function  |
| (i) |  |
| (ii) |  |

1. State the functions of the apparatus named below.
2. Fish net

………………………………………………………………………………………………………………………………………………………………………………

1. Pooter

………………………………………………………………………………………………………………………………………………………………………………

1. Bait trap

………………………………………………………………………………………………………………………………………………………………………………

1. Pitfall trap

………………………………………………………………………………………………………………………………………………………………………………

1. Name three organic compounds that constitute living organisms. (3mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. State the three classes of carbohydrates. (3mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………