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

**FORM ONE BIOLOGY**

**MID TERM EXAMS**

**TERM 1 2021**

**TIME: 1 HOUR**

**Attempt all the questions in the spaces provided.**

1. Define the term Biology. (1 mk)

 **- Branch of science which deals with the study of living things**

2. Name and define the two main branches of biology. (4 mks)

 **(i) Zoology – Scientific study of animals**

 **(ii) Botany – Scientific study of plants.**

3. State the name given to the following:. (4 mks)

 (i) Study of living things and their surrounding.

 **Ecology**

 (ii) Study of inheritance and variation

 **Genetics**

 (iii) Study of insects

 **Entomology**

 (iv) Study of parasites.

 **Parasitology**

4. State four ways in which study of biology is useful. (4 mks)

 **(i) Solving environmental problems**

 **(ii) Entry into careers**

 **(iii) One gains scientific skills**

 **(iv) Creates international cooperation**

5 . (a) List eight characteristics of living organisms. (8 mks)

 **(i) Nutrition**

 **(ii) Respiration**

 **(iii) Gaseous exchange**

 **(iv) Excretion**

 **(v) Growth and development**

 **(vi) Reproduction**

 **(vii) Irritability**

 **(viii) Movement**

 (b) Define each of the characteristics of living thins stated in 5(a) above. (9 mks)

 **(i) Nutrition - Process by which living organisms acquire and utilize nutrients**

 **(ii) Respiration - chemical breakdown of food to release energy.**

 **(iii) Gaseous exchange- Movement of respiratory gases across a respiratory surface**

 **(iv) Excretion – Removal of metabolic wastes from the body**

 **(v) Growth - is the irreversible increase in size and mass of an organism**

 **Development – is irreversible increase in complexity of the organism.**

 **(vi) Reproduction – process by which living organisms give rise to new individuals of the**

 **same king.**

 **(vii) Irritability – ability to perceive change in the environment and respond appropriately.**

 **(viii) Movement – Change in position of part or whole of the organism.**

6. (a) What is a specimen? (1 mk)

 **- Its part or whole organism that is being studied/used for study of biology.**

(b) Explain how the following apparatus are used in collection of specimen. (3 mks)

|  |  |
| --- | --- |
| **Apparatus** | **Use** |
| Sweep net | **Catching flying insects** |
| Fish net | **Trapping small water animals eg fish** |
| Pooter | **Sucking small animals from surfaces** |
| Bart trap | **Attracting and trapping small animals eg rats** |
| Pit fall trap | **Catching crawling animals** |
| Pair of forceps | **Picking up small crawling animals** |

7. Study the apparatus shown below.

 (a) Name the apparatus shown. (1 mk)

 **- Hand lens**

 (b) State the use of the apparatus. (1 mk)

 **- Enlarging objects**

 (c) Name the parts A - **Frame**

 B - **Convex lens**

 **C Handle**

8. (a) List four difference between plants and animals (4mks)

|  |  |
| --- | --- |
| Plants  | Animals |
| Have chlorophyll hence manufacture their food | Lack chlorophyll hence feed on ready made food |
| Cells have cellulose | cells have cell membrane and lack cell wall |
| Respond slowly to stimulus change in environment) | Quick response to stimuli |
| Don’t move about | Move about for food, shelter |
| Lack specialized excretory organs |  Have specialized complex excretory organs |

9. Outline four precautions during collection and observation of specimens. (4mks)

(i) Collect only number needed to avoid wastage

(ii) Do not harm specimen during capture/collection

(iii) Do not destroy the natural habitat

(iv) Handle with care injurious/dangerous specimen

(v) Immobilize highly mobile animals for easy study

Return live specimens to their habitat where possible.