**BIOLOGY- FORM 1**

**MID-TERM EXAM**

**TERM 1, 2024**

**MARKING SCHEME**

**INSTRUCTIONS: (Answer all questions in the spaces provided) TIME: (1 hour)**

1. **Define the term biology 1mrk**

 The study of life/living things

1. **List and define the two major branches of biology . 4mrks**

* Zoology (study of animals)
* Botany (study of plants)
1. **Give four importances of studying biology. 4mrks**

* helps to solve environmental problems such as pollution
* Helps to learn scientific skills such data collecting
* For entry into other professions/careers such as teaching
* To apply knowledge to everyday life situations
* To classify organisms into their right groups
* understanding living organisms

1. **State the eight characteristics of living organisms 8 mrks**

* Feeding/nutrition
* Growth and development
* Respiration (to produce energy)
* sensitivity/irritability
* Excretion (getting rid of metabolic waste material)
* Movement/locomotion

Reproduction

1. **How does nutrition differ in plants and animals? 2mrks**

***Plants manufacture their own food/ are autotrphic while animals do not manufacture their own food/ are heterotrophic.***

1. **The photograph below illustrates living organisms. Study it and answer the question that follow.**

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 **State two characteristics of living organisms illustrated in the 2mrks**

**photograph**

***Reproduction***

 ***Growth and development.***

1. **Name the characteristic of living organisms illustrated by dressing heavily- 1mrk**

***Irritability/ sensitivity/ response to a stimulus***

1. **State five main differences between plants and animals . 10 mrks**

|  |  |
| --- | --- |
| **Animals**  | **Plants**  |
|  Has Specialized complex excretory organs   | Has simple excretory organs  |
| Respond quickly to stimulus   |  respond to stimulus slowly |
| Has definite growth  | Have indefinite growth |
| Move around to look for food   | Stationery  |
| Heterotrophic   | Autotrophic  |
| Cells have no cell walls  | Cells have cell wall made of cellulose   |
|  Cells lack chlorophyll  |  Cells has chlorophyll  |

1. **What is a hand lens? 1mrk**

Convex lens mounted on a frame and used to magnify small objects for viewing.

1. **List three use of the energy obtained from the process of respiration. 3mrks**

 Growth and development

 Movement and locomotion

 Transmission of nerve impulses

1. **Motor vehicles move, use energy and produce carbon dioxide and water. Similar**

**characteristics occur in living organisms yet motor vehicles are not classified as**

**living. List other characteristics of living things that do NOT occur in motor**

**vehicles. 3mrks**

 Growth and development

 Irritability

 Reproduction

1. **Give the functions of the following apparatus as used in biology. 6mrks**
2. **Fish net;** used for trapping small fish and other small water animals.
3. **Pooter ;** used for sucking small animals from rock surfaces or barks of trees
4. **Bait trap;** For attracting small animals including rats.
5. **Pitfall trap;** for catching crawling animals.
6. **Pair of forceps ;** Used for picking up small crawling animals e.g. stinging insects.
7. **Specimen bottles;** For keeping/storing collected specimen.
8. **What do you understand by the term specimen 2mrks**

Organism or part of organism being studied

1. **list three precautions made during collection and observation of specimen.**

 **3mrks**

Collect only the number of specimens you need.

Do not harm specimens during the capture(collection)

Do not destroy the natural habitat of the specimen .

After use return any live specimens back to their habitat whenever possible.

Dangerous/ injurious specimens should be handled with a lot of care such include stinging plants or insects make use of forceps and hand gloves in such cases.

For highly mobile animals they should be immobilized.