1. List five differences between a plant and an animal. (5mks)

|  |  |
| --- | --- |
| **Plant**  | **Animal**  |
| **Green plants have chlorophyll that enables them manufacture their own food**  | **Lack chlorophyll hence feed on already made food** |
| **Respond slowly to stimuli** | **Responds quickly to stimuli**  |
| **Lack specialized excretory organs**  | **Have complex excretory organs**  |
| **Their cells have a cellulose cell wall** | **Their cells lack a cellulose cell wall** |
| **Growth occurs at specific growth points** | **Growth occurs in all parts of the body** |

1. Mention the name given to the study of each of the following: (4mks)
2. The cell

**Cytology**

1. Micro organisms

**Microbiology**

1. Fungi

**Mycology**

1. Insects

**Entomology**

1. An electric train is able to move but does not oxidize any fuel, yet it is not classified as a living organism. List four characteristic features of living organisms that are not evident in an electric train. (4mks)
2. **Irritability**
3. **Reproduction**
4. **Gaseous exchange**
5. **Nutrition**
6. **Growth and development**
7. Give four reasons why Biology is studied in schools. (4mks)
8. **To help in solving environmental problems such as food shortage, pollution, poor health services.**
9. **It is necessary for entry into careers such as dentistry, public health, animal husbandry.**
10. **Promotes international co-operation.**
11. **To acquire scientific skills e.g. observing, analyzing that are useful in day to day life.**
12. **Enables one to understand, appreciate and conserve environment.**
13. State one use of each of the following apparatus in the study of living organisms. (3mks)
14. Pooter

**Used for collecting small animals such as insects by sucking them.**

1. Pitfall trap

**For collecting small crawling animals such as bettles and spiders.**

1. Sweep net

**For collecting and catching flying insects as grasshoppers.**

1. Give the difference between the following characteristics of living organisms. (4mks)
2. Gaseous exchange and respiration.

**Gaseous exchange is the exchange of gases across the respiratory surfaces while respiration is the energy producing process that takes place in the cell of living organisms.**

1. Nutrition and reproduction

**Nutrition is the process by which living organisms acquire and utilize nutrients while reproduction is process by which living organisms give rise to new individuals of the same kind.**

1. Define the term Biology. (1mk)
* **Biology is a branch of science that deals with the study of living organism.**

b. Name the two main branches of Biology. (2mks)

 **- Botany**

 **- Zoology**

1. Name any three skills acquired when one studies Biology. (3mks)
2. **Observation**
3. **Identification**
4. **Recording**
5. **Classifying**
6. **Measuring**
7. **Analyzing**
8. **Evaluating**