

Objective Type Questions

1. Name the following:

- | | |
|---------------------|-------------------------|
| (a) Pitcher plant | (b) Respiration |
| (c) Stimulus | (d) Silk moth, Mosquito |
| (e) Flowering stage | (f) Light |
| (g) Tadpole | |

2. Fill in the following blanks with suitable words:

- | | |
|-------------------|-----------|
| (a) Insectivorous | (b) Touch |
| (c) Earthworm | (d) Air |
| (e) Gravity | (f) Pupa |

3. State whether the following statements are true or false:

- | | | | | |
|-----------|-----------|-----------|----------|-----------|
| (a) False | (b) False | (c) False | (d) True | (e) False |
| (f) True | | | | |

Subjective Type Questions

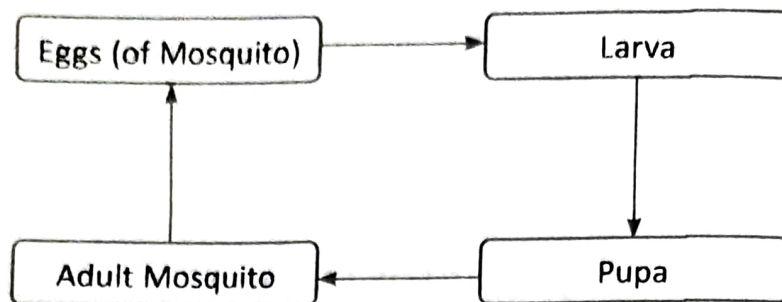
Short Answer Type Questions

1. An example of a non-living thing that appears to show two characteristics of living things is a cloud. This is because, just like living things, a cloud grows in size and it also shows movement.
2. Butter, Leather, Wool, Cooking oil, Apple, Rubber
3. (a) Dog, cow (b) Pigeon, frog
4. If a man touches a very hot object accidentally, he quickly pulls his hand away from the hot object. If a barefooted man steps on a sharp object like a thorn (or a nail), he quickly pulls away his foot from the sharp object.

5. The life cycle of a mosquito consists of four stages:

- (i) Egg
- (iii) Pupa

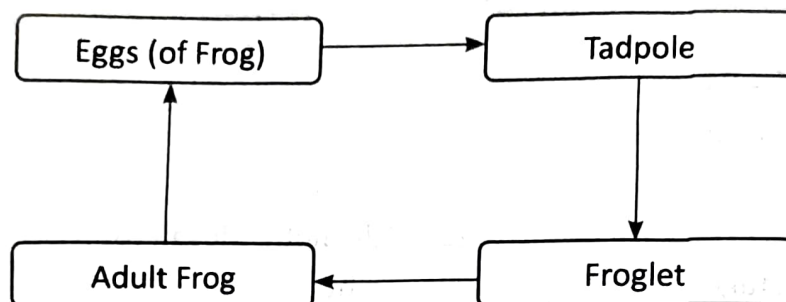
- (ii) Larva
- (iv) Adult



6. The main stages in the life cycle of a frog are:

- (i) Egg
- (iii) Froglet

- (ii) Tadpole
- (iv) Adult Frog



7. An example is the bending of plant shoots towards sunlight. The stimulus is sunlight.
8. The life cycle of a plant is the process which a plant goes through from the time it starts as a seed until it grows into a mature plant, makes new seeds and finally dies. The new seeds produced during a plant's life cycle would germinate into new plants, and the cycle continues. The main stages in the life cycle of a plant are:
- (i) Seed
 - (ii) Germination
 - (iii) Seedling
 - (iv) Mature Plant
 - (v) Flowers
 - (vi) Fruits
 - (vii) Seed dispersal
9. The life cycle of an animal is the process through which an animal goes from the time it is born, grows up, reproduces (has babies), and ultimately dies. This cycle keeps repeating as the babies grow into adults and have their own babies (or young ones).

Two animals with four stages in their life cycles are:

- (i) Frog (Egg → Tadpole → Froglet → Adult Frog)
- (ii) Mosquito (Egg → Larva → Pupa → Adult mosquito)

10. The removal of waste substances from the body of a living organism is called excretion. Sweating is also a minor method of excretion in humans (and many other animals). The sweat consists of water and salts removed by our body as waste products through sweat glands.

Long Answer Type Questions

1. Differences between living things and non-living things.

Living things	Non-living things
Living things need food, air and water.	Non-living things do not need food, air and water.
Living things grow.	Non-living things do not grow.
Living things can move on their own.	Non-living things cannot move on their own.
Living things reproduce.	Non-living things do not reproduce.
Living things excrete. They get rid of waste materials from their body.	Non-living things do not excrete.

2. Respiration is the chemical process in which food taken by an organism combines with oxygen to release energy. This energy is crucial for living organisms as it is used to carry out various life processes such as growth, movement, and staying alive. In addition to energy, the process of respiration produces carbon dioxide and water. All living things, both plants and animals, undergo respiration to obtain energy from food. For example, in humans, the body takes in oxygen from the air for respiration and releases carbon dioxide, a product of respiration, through the lungs.
3. If we move from a dark room into bright sunshine suddenly (or switch on a bright light), our eyes automatically shut themselves for a moment until they adjust to the new bright surroundings. In this case, the bright light is the stimulus, and the response is our eyes shutting momentarily to protect ourselves from the sudden change in light.
4. The main waste products produced by plants are carbon dioxide (during respiration) and oxygen (during photosynthesis). During the daytime, the waste product carbon dioxide is re-used by plants in making food by photosynthesis. At night time, the plants get rid of waste carbon dioxide through the stomata in the leaves. The waste product oxygen is also removed from plants through the stomata in their leaves. Some plants store some of their waste products in the body parts (like leaves, bark and fruits) in a way that they do not harm the plant as a whole. The plants get rid of these wastes by the shedding of leaves, peeling of bark and felling of fruits. Some plants remove their waste products as secretions. For example, the plants secrete a large number of waste products like gum, resin and latex (rubber solution).
5. The essential conditions for the germination of a seed are:
- Presence of Water (Moisture):** Water softens the seed coat and activates the dormant plant (embryo) inside the seed. It helps in starting the growth process, and without water, the seed cannot germinate.
 - Presence of Air (Oxygen):** Seeds need oxygen to carry out respiration and obtain energy from stored food in the cotyledons. This energy is required for the seed to germinate and grow. Without air, the seed cannot germinate.
 - Presence of Warmth (Temperature):** Most seeds germinate best in warm conditions. The right temperature helps to activate the breakdown of stored food in the seed, providing energy for the growth and development of the seedling.

Multiple Choice Questions (MCQ)

1. (c) bicycle
2. (b) rubber band
3. (c) air, food and water
4. (b) giraffe
5. (c) fish
6. (d) They need water to live
7. (c) respiration
8. (c) sunlight
9. (c) hatching
10. (c) tadpole

21st Century Skills

1. (a) Oxygen and Carbon dioxide (b) Stomata (c) Lungs
2. (a) Sunflower plant (b) Sunlight (c) Mimosa plant (or Touch-me-not plant)
(d) Touch (of a pencil)
3. (a) Figure ii (b) B (c) A (d) Root (e) Shoot