

SCIENCE

CHAPTER 9: LIVING ORGANISMS AND SURROUNDINGS



Important Questions

Multiple Choice Questions:

Question 1. Which one of the following statements is correct?

- (a) Several kinds of plants and animals may share the same habitat.
- (b) All the animals and plants in a habitat are adopted to it.
- (c) Both the statements are correct.
- (d) None of these is correct.

Question 2. Animals and plants have certain features which make them to survive in a particular habitat. This is called

- (a) adaptation
- (b) speciation
- (c) specialization
- (d) evolution

Question 3. Which is a biotic component of environment?

- (a) Plants
- (b) Animals
- (c) Microorganisms
- (d) All of these

Question 4. Which is not an abiotic component of environment?

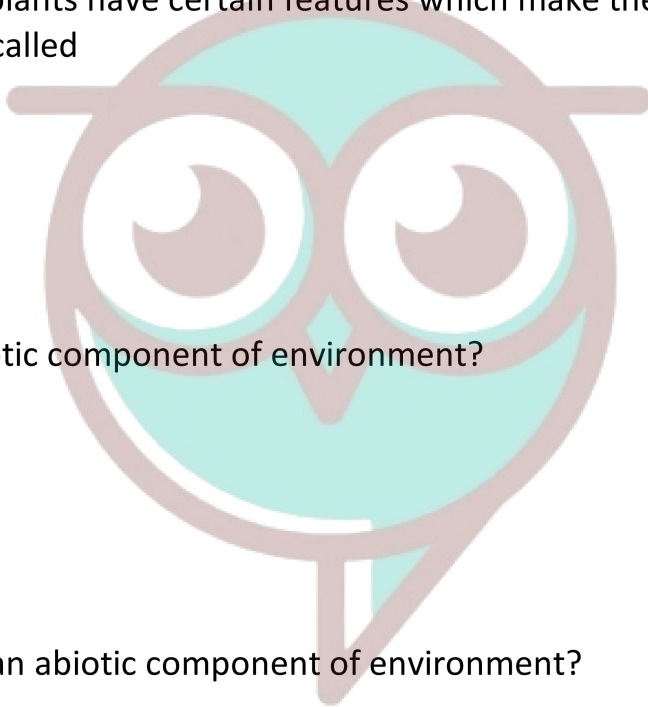
- (a) Soil
- (b) Bacteria
- (c) Water
- (d) Air

Question 5. Which is an example of an animal found in mountain region?

- (a) Leopard
- (b) Yak
- (c) Mountain goat
- (d) All of these

Question 6. What are the characteristics of a desert plant?

- (a) No leaves or very small leaves
- (b) Spines
- (c) Deep roots



Swotters

(d) All of these

Question 7. Respiration in aquatic animals occurs by

(a) lungs

(b) gills

(c) nostrils

(d) legs

Question 8. Which is an aquatic adaptation?

(a) Streamlined body

(b) Light and hollow bones

(c) Hair on body

(d) Gills

Question 9. Bending of a stem towards sunlight is called

(a) geotropism

(b) phototropism

(c) hydrotropism

(d) nasticism

Question 10. Sunken stomata are present in

(a) hydrophytes

(b) epiphytes

(c) xerophytes

(d) mesophytes

Very Short Question:

1. Name some plants found on mountains.
2. What is habitat?
3. Name a few habitats.
4. Name two organisms that live in deserts.
5. Name a few plants that live in ponds.
6. Name the habitat where various types of fish live.
7. Name a common thing in all fishes.
8. What is the function of gill?
9. Name the animal which is called the ship of desert.
10. Name various types of habitat.



Short Questions:

1. What are the differences in the desert and sea regions?
2. What do you mean by term adaptation?
3. Explain the features of fish which help it to adapt to live in water.
4. How are camels adapted to live in desert?
5. What do you mean by acclimatisation?
6. Why do we need abiotic factors?
7. How are some animals adapted to live in desert?
8. Write the features of desert plants.

Long Questions:

1. Explain the characteristics of living organisms.
2. Write the difference between living and non-living things.

Answer Key-**Multiple Choice Answers:**

1. (c) Both the statements are correct.
2. (a) adaptation
3. (d) All of these
4. (b) Bacteria
5. (d) All of these
6. (d) All of these
7. (b) gills
8. (a) Streamlined body
9. (b) phototropism
10. (c) xerophytes

Very Short Answers:

1. Answer: Oaks, Pinus and Deodars.
2. Answer: The place where organisms live and which provide food and safety for them is called habitat.
3. Answer: Forests, grassland, mountains, ponds and oceans etc.
4. Answer: Cactus, camel, desert rat.
5. Answer: Hydrilla, lotus, hyacinth etc.

6. Answer: Pond, river, sea.
7. Answer: Gills, streamlined body, fins, tail.
8. Answer: Gills help the fish to absorb oxygen dissolved in water.
9. Answer: Camel
10. Answer:
 - (i) Terrestrial Habitats
 - (ii) Aquatic Habitats
 - (iii) Aerial Habitat

Short Answer:

1. Answer: In the sea, plants and animals are surrounded by salty water. Most of them use the air dissolved in water for breathing. In desert, a very little amount of water is available. It is very hot in the day time and very cold at night. The organisms breathe air from the surroundings.
2. Answer: The presence of specific features or certain habits which enable a plant or an animal to live in its surroundings is called adaptation.
3. Answer:
 - (i) The shape of the fish is streamlined which help in the movement.
 - (ii) The slippery scales/skin on their bodies to protect them.
 - (iii) They have flat fins and tails which help them to swim, change direction and to keep the body balanced.
 - (iv) They have gills which help in breathing in water.
4. Answer:
 - (i) The feet of the camels have thick, flat large soles which help them in the movement on sand.
 - (ii) They can live without water for a long time. When water is available, it drinks large amount of water at a time.
 - (iii) They release very little urine to prevent loss of water.
 - (iv) Their dung is also dry which also helps to prevent loss of water.
 - (v) The long legs of camel helps to keep the body away from the heat of the sand.
5. Answer: The small changes which take place in the body of a single organism over short periods to overcome small problems due to changes in the surroundings are called acclimatization.
6. Answer: The abiotic factors like air, water, light and heat are very important for the growth of plants. These abiotic factors are also very important for the growth and the development of animals.

7. Answer: Some animals like rats and snakes do not have the long legs like camels to stay away from the effect of heat during the day. They stay in burrows deep in the sand. They come out only during the night.
8. Answer:
- (i) The leaves in desert plants are either absent or very small.
 - (ii) Leaves are converted into spines which help to reduce loss of water.
 - (iii) The stems become thick, flat and green which help in photosynthesis.
 - (iv) The stem is covered with waxy layer which helps to retain water. In some plants stem is spongy and stores water.
 - (v) The roots go very deep in the soil to absorb water.

Long Answer:

1. Answer: There are following characteristics of living organisms
- (i) All living organisms require food. The food gives energy for growth and to maintain other life processes.
 - (ii) All living organisms show growth. Young ones of animals grow into adults. Plants also grow.
 - (iii) All living organisms respire. In respiration oxygen is used for the oxidation of food and carbon dioxide is produced.
 - (iv) All living organisms respond to stimuli. All plants and animal respond to light, heat and the changes around them.
 - (v) All living organisms show excretion. The process of getting rid of waste product by the living organisms is called excretion. Plants also remove their wastes.
 - (vi) All living organisms reproduce. The process by which plants and animals produce their own kind is called reproduction.
2. Answer:

Living Things	Non-Living Things
They possess life.	They do not possess life.
Living things are capable of giving birth to their young one.	Non-living things do not reproduce.
For survival, living things depend on water, air and food.	Non-living things have no such requirements
Living things are sensitive and	Non-living things are not sensitive

responsive to stimuli.	and do not respond to stimuli.
Metabolic reactions constantly occur in all living things.	There are no metabolic reactions in Non-living things.
Living organisms undergo growth and development.	Non-living things do not grow or develop.
They have a lifespan and are not immortal.	They have no lifespan and are immortal.
Living things move from one place to another.	Non-living things cannot move by themselves.
They respire and exchange of gases takes place in their cells.	Non-living things do not respire.
Example: Humans, animals, plants, insects.	Example: Rock, pen, buildings, gadgets.

