

# NCERT SOLUTIONS CLASS-VI SCIENCE CHAPTER-9

## THE LIVING ORGANISMS AND THEIR SURROUNDINGS

### Subjective Type Questions

1. **What is meant by Habitat?**

**ANS:** The surroundings where animals dwell in comfort zone is called habitat. The animals depend on their habitat for their shelter, food, water and other needs. Example: Lion lives in the den.

2. **How does cactus live in desert?**

**ANS:** Cactus live in desert as they have

(i) They do not have leaves as to modify the water loss through transpiration process. (ii) The stem is structured in such way that it conserves water and performs photosynthesis within them with the help of solar power. (iii) For the need of water, their root goes in deep into the soil.

3. **Fill in the blanks:**

(a) **The specific feature which enables a plant or an animal to live in a particular habitat is of their presence is called \_\_\_\_\_**

(b) **The plants and animals that live on land habitat is called \_\_\_\_\_**

(c) **The plants and animals that live in water habitat is called \_\_\_\_\_**

(d) **The factors like soil, water and air of habitats is called \_\_\_\_\_**

(e) **The responding factor that makes us to feel when there is some changes in the surroundings is called as \_\_\_\_\_**

**ANS:** (1) adaptation (2) terrestrial (3) aquatic (4) abiotic (5) stimuli

4. **Give the names of the things in the following list are non-living?**

**ANS:** 1. Plough 2. Mushrooms 3. Sewing machine. 4. Radio. 5. Boat. 6. Water. 7. Hyacinth. 8. Earthworm. 9. Radio. 10. Boat and 11. water are non-living.

5. **Give an example of non-living that resembles to be like a living.**

ANS: Non-living thing is cloud which shows to be alike of living things:

(i) its size grows (ii) it moves.

6. **Name some non-living thing, where once they were part of a living thing**

Options: 1. Butter 2. Leather 3. Soil 4. Wool 5. Electric Bulb 6. Cooking Oil 7. Salt  
8. Apple 9. Rubber.

ANS: 1. Butter 2. Leather 4. Wool 5. Cooking oil 8. Apple and 9. Rubber are some of the non-living things that were once part of living things.

7. **Give the characteristics of living things.**

ANS: Some characteristics of living things:

(a) Growth (b) Reproduction (c) Responsiveness

(d) Movement (e) Respiration (f) Excretion

8. **Explain why speed is important for survival? Especially for animals living in grassland habitat. (Hint: There is fewer amounts long grasses and consider it as open grasslands.)**

ANS: As we look into grasslands habitats, there are fewer trees or few places for animals to hide and move from one place to another. When their enemy (for example: if carnivores attack herbivores) attacks they should run fast to reach the safer place to live their life. They lose their life if they are really slow. Thus, the speed is the important factor for animals to survive in grasslands habitat as the speed makes them live their life.

**Give short Answer of the questions:**

1. **Give the names of some plants in mountains:**

ANS: Deodars and quillwort are some plants in mountain areas.

2. **Give any three names of plants that live ponds.**

ANS: (1) Taro (2) lotus

3. **Give any three names of habitat you know?**

ANS: (1) grassland. (2) Mountains. (3) Ponds and oceans etc.

4. **Name any two organisms that live in deserts.**

ANS: (1) Cactus (2) camel

5. **Name various types of fishes that live in pond:**

**ANS:** (1) Pond (2) river (3) sea.

6. **Write a common thing you find in all fishes:**

**ANS:** 1. Gills 2. Fins 3. tail

7. **Write the important function of gill?**

**ANS:** To absorb oxygen and for respiration.

8. **Which animal is called and titled as "Ship of the desert":**

**ANS:** Camel is called and titled as the ship of the desert.

9. **Write some types of habitat.**

**ANS:** 1. Terrestrial Habitats

2. Aquatic Habitats

3. Aerial Habitat

10. **Name some aquatic animals.**

**ANS:** a. Fish b. tortoise

11. **Name some terrestrial organisms.**

**ANS:** (i) Lion (ii) Dog

12. **Give two examples of aerial habitat animals.**

**ANS:** a. Birds b. Mosquitoes

13. **Name the types of constituents of habitat**

**ANS:** Constituents of habitat are: (1) Biotic components (2) Abiotic components

14. **Give two examples of each (i) biotic (ii) abiotic component.**

**ANS:** Animals and plants are biotic, whereas air and water are abiotic components.

15. **What is meant by germination of seeds?**

**ANS:** generation of new plants from the seeds is called germination of seeds.

16. **Does adaptation take place in a given short time?**

**ANS:** No, It takes thousands of years to adapt.

17. **Name some terrestrial habitats.**

**ANS:** 1.Deserts 2.mountains 3.grassland.

18. **Name few aquatic habitats.**

**ANS:** 1.Oceans 2.ponds 3. Lakes

19. **What are predators and give one example:**

**ANS:** The animals which kill other animals for their survival and food are called predators. Ex: Tiger kills deer for its survival.

20. **What is called prey?**

**ANS:** The animals that are killed by predators for their food and survival are called prey.

21. **Name two aquatic animals that don't use gills to breathe.**

**ANS:**1.Dolphin 2.whales.

22. **What are blowholes or nostrils in dolphins and whales?**

**ANS:** The organs in dolphins and whales that help in its breathing are called blowholes or nostrils.

23. **Explain photosynthesis?**

**ANS:** The process making their own food with the help of solar energy from sun, chlorophyll, carbon dioxide and water is called photosynthesis.

24. **The main function of food is to?**

**ANS:** Food gives energy and power to the body of any organisms which helps it in growth and development.

25. **What is meant by breathing?**

**ANS:** The process in taking oxygen inside and giving out carbon-dioxide (inhalation and exhalation of air) in organisms is meant by breathing.

26. **What is called respiration?**

**ANS:**Inhalation and exhalation of air done by the organisms to break down food to get energy, water and oxygen for humans, animals and CO<sub>2</sub> for plants is called respiration.

27. **What is called stimuli?**

**ANS:** The arousal of activity that makes to respond or creates a responsive function is called stimuli.

28. **What is called excretion?**

**ANS:** The process of getting rid of the waste by the living organisms is known as excretion.

29. **Do plants also excrete yes or no?**

**ANS:** Yes, plants do excrete.

30. **What is reproduction?**

**ANS:** The process by which living organisms tend to produce more of their own kind is called reproduction.

31. **Do animals move to different places?**

**ANS:** Yes, animals move from one place to another.

32. **Do plants also move from one place to another?**

**ANS:** Plants are generally fixed inside the soil, so they cannot move from one place to another like animals.

33. **What is Habitat and what are the types of habitat?**

**ANS:** The surroundings where animals dwell in comfort zone is called habitat. The animals depend on their habitat for their shelter, food, water and other needs. The types are: water, grassland habitats.

### SHORT ANSWER TYPE QUESTIONS

1. **Give the differences in the desert and sea regions?**

**ANS:** In the sea, the water is almost salty and also the animals and plants are covered by them. Mostly these animals use oxygen that is dissolved in water. In the desert, water is available only in few places. And it's hotter in daytime and very cold at night time. The organisms breathe in and out air from the surroundings.

2. **What is meant by the term adaptation?**

**ANS:** The certain feature in plants and animals which it makes them to live in certain conditions is called as adaptation.

3. **Explain how the fish helps it to adapt to live in water.**

**ANS:** (a) the fish has the streamlined shape which helps in the movement.

(b) The slinnery scales and skin on their bodies to protect them from heavy tides.

(v) The slippery scales and skin on fish scales to protect them from heaty seas.

(c) They have patterned fins and tails which helps them to swim, change to the desired direction and to keep the body balanced inside water.

(d) They have gills which helps them breathe in water.

#### 4. **How do camels live in desert?**

**ANS:** (a) To move from one place to another place in sand, the feet of the camels designed to have broad, formatted large soles which help them in the movement on sand.

(b) They can live without water for a long period of time. When water is available, it drinks litres of water in a specific time.

(c) They urinate very less and the dung they release is very dry to prevent the loss of water.

(d) The broad legs of camel helps in keeping the body warm from the hot desert.

#### 5. **What is called by the term acclimatisation?**

**ANS:** The minute changes adapted by the organisms to overcome small problems in a short period of time due to the changes in its surroundings is called as acclimatisation.

#### 6. **Abiotic factors are needed for?**

**ANS:** The necessary factors like air, water, heat, light are generally necessary for the growth of plants. These factors are beneficial for the growth and development for both plants and animals.

#### 7. **How are animals adapted to live in the desert?**

**ANS:** Animals like rats, snakes and rabbits do not have the long broad legs like camels to stay away from the effect of heat during the day. They stay in deeper burrows in the sand. They peep out only during the night.

#### 8. **Give the features of desert plants.**

**ANS:** (a) The leaves designed in desert plants are either too small or literally absent. (b) Leaves are converted into spines which help to reduce the loss of water. (c) The stems become thick, green and flat which help in photosynthesis. (d) To retain water the stem is covered with waxy layer. Stem is spongy and stores water (v) The roots of these plants go very deep into the soil to absorb water.

#### 9. **How do trees adapt to live in mountain regions?**

**ANS.:** (a) The shape of the trees is of normally cone shaped.

(b) Branches are designed in slopes and look needle-like.

(c) These structures of these trees prevent accumulation of rainwater and snow over them.

10. **How do animals adapt to live in mountain regions?**

**ANS:**The thick skin and fur on the body of the animals protect them from the cold on walking in the snow. Example:mountain goats, mountain lions.

11. **How do plants adapt to live in water areas?**

**ANS:**Roots are low in size which holds the plant as Stems are broad, void and light. Stems grow above the water. Leaves and flowers float on the surface. The waxy layer in leaves of these plants protects from excessive water.

12. **What kind of movement do we see in plants?**

**ANS:** (a)Flower's opening and closing. (b)Growing difference of stem and leaves in plants. (c)Movement of water, mineral sand nutrients like nitrogen, potassium, phosphorus, calcium, sulphur and magnesium. (d)Movement of stem and root towards sunlight and water in the soil.

13. **Which animal can live both on land and in water, Give some adaptations seen in these animals.**

**Ans:** Frogs are the animals that live on both land and in water, and also they have strong back legs so that it helps them in leaping and catching their prey in a spontaneous way They also have webbed feet which help them to swim in water in approximate speed.

**LONG ANSWER TYPE QUESTIONS**

1. **Explain in detail the characteristics of living organisms.**

**ANS:** There are following characteristics of living organisms: Every living organism is made of 1 or more than one cells. They tend to grow, develop, get older and at last die. All organisms are very sensitive to changes or happenings in their environments. The sensitivity deals with smells, motions, sounds, touches, temperatures, etc. and has many ways to respond to the changes they sense in the environment. All living things are able to reproduce. All living things can repair and maintain themselves. All living things produce waste material. All living things can move. All living organisms require food. The food gives energy for growth and to maintain other life processes. All living organisms show growth. Young ones of animals grow into adults. Plants also grow All living organisms respire. In respiration, oxygen is used for the oxidation of food and carbon dioxide is produced. All living organisms respond to stimuli. All plants and animal respond to light, heat and the changes around them. All living organisms show excretion. The process of getting rid of the waste product by the living organisms is called excretion. Plants also remove their wastes.

