SHORT ANSWER TYPE QUESTIONS

1. What are the differences in the desert and sea regions?
Ans: 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. What do you mean by term adaptation?
Ans: The presence of specific features or certain habits which enable a plant or an animal to live in its surroundings is called adaptation.

3. Explain the features offish which help it to adapt to live in water.
Ans: (i) The shape of the fish is streamlined which help in the movement.
(ii) The slippery scales/skin on their bodies to protect them.

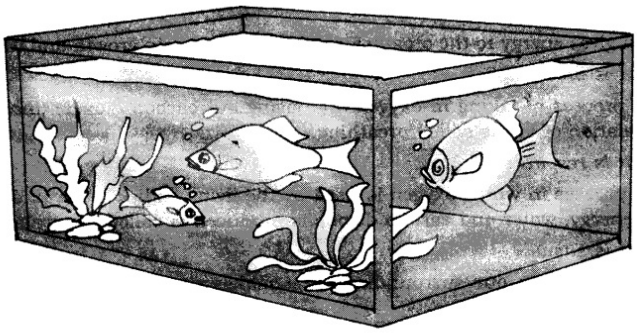

Fig. 9.4 Different kinds of fish

(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. How are camels adapted to live in desert?
Ans:
(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. What do you mean by acclimatisation?
Ans: 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 acclimatisation.

6. Why do we need abiotic factors?
Ans: 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. How are some animals adapted to live in desert?

Ans: 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.

Fig. 9.5 Desert animals in burrows

8. Write the features of desert plants.
Ans:
(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

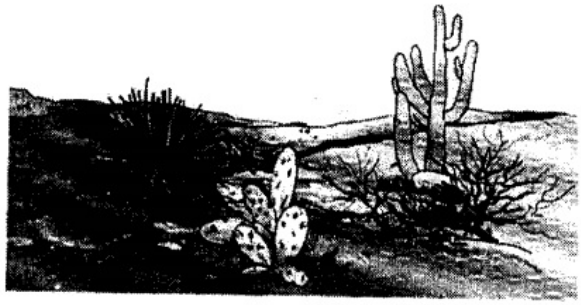

Fig. 9.6 Some typical plants that grow in desert

9. Explain the adaptation of trees to live in mountain regions.
Ans: (i) The shape of the trees is of normally cone type.

Fig. 9.7 Trees of a mountain habitat

(ii) Branches are sloping.
(iii) The leaves of these trees are needle like.
(iv) These structures prevent accumulation of rainwater and snow over them.

10. Explain the adaptation of animals to live in mountain region.
Ans:
(i) The animals have thick skin or fur to protect them from the cold.
(ii) Some animals have thick fur on their body, feet and toes which protect them from cold on walking in the snow.
(iii) The goats have strong hooves for running up on rocky slopes.

11. Explain the adaptation of plants to live in water.
Ans:
(i) Roots are reduced in size which hold the plant.
(ii) Stems are long, hollow and light.
(iii) Stems grow up to the surface of water.
(iv) Leaves and flowers float on the surface of water.
(v) The leaves are covered by the waxy layer which protects the leaves from excessive water.

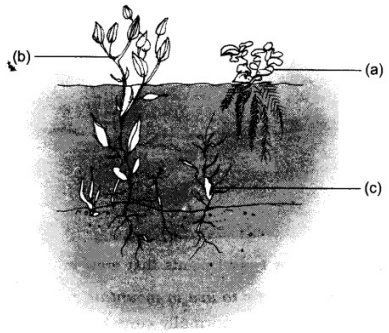

Fig. 9.8 (*a*) Some aquatic plants float on water (*b*) Some have their roots fixed in the soil at the bottom. (*c*) Some aquatic plants are completely submerged in water.

12. What kind of movement do we see in plants?
Ans:
(i) Opening and closing of a flower.
(ii) Growth of a stem and leaves.
(iii) Movement of water, minerals and food from one part of the plant to other.
(iv) Movement of stem towards sunlight and root towards water in the soil.

13. Frogs can live both on land and in water, name the adaptations seen in these animals.
Ans: Frogs have strong back legs that help them in leaping and catching their prey. They have webbed feet which help them to swim in water.

LONG ANSWER TYPE QUESTIONS
1. Explain the characteristics oflimng organisms.
Ans. 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 oxidftion 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. Write the difference between living and non-living things.
Ans.

Living things	*Non-living things*
1. Living organisms need food, air and water.	1. Non-living things do not need food, air and water.
2. Living organisms grow.	2. Non-living things do not grow.
3. Living organisms can move on their own.	3. Non-living things cannot move on their own.
4. Living organisms are sensitive. They respond to changes around them.	4. Non-living things are not sensitive. They do not respond to changes around them.
5. Living organisms reproduce themselves.	5. Non-living things do not reproduce.
6. Living organisms respire. They release energy from food.	6. Non-living things do not respire.
7. Living organisms excrete. They get rid of waste materials from their body.	7. Non-living things do not excrete. their body.
8. Living organisms have a definite life span after which they die, i.e. they have a definite life cycle.	8. Non-living things do not have definite life cycle.
9. Living things are made up of living cells.	9. Non-living things are not made up of cells.

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