

Science

(Chapter – 7) (Weather, Climate and Adaptations of Animals to Climate)
(Class – VII)

Exercises

Question 1:

Name the elements that determine the weather of a place.

Answer 1:

Temperature, humidity, rainfall, wind speed, air pressure, etc. are the elements of the weather. Because the weather of a place can be determine using these elements.

Question 2:

When are the maximum and minimum temperatures likely to occur during the day?

Answer 2:

The maximum temperature of the day occurs generally in the afternoon while the minimum temperature occurs generally in the early morning.

Question 3:

Fill in the blanks:

- (i) The average weather taken over a long time is called _____.
- (ii) A place receives very little rainfall and the temperature is high throughout the year, the climate of that place will be _____ and _____.
- (iii) The two regions of the earth with extreme climatic conditions are _____ and _____.

Answer 3:

- (i) The average weather taken over a long time is called *climate of the place*.
- (ii) A place receives very little rainfall and the temperature is high throughout the year, the climate of that place will be *hot* and *dry*.
- (iii) The two regions of the earth with extreme climatic conditions are *tropical region* and *polar region*.

Question 4:

Indicate the type of climate of the following areas:

- (a) Jammu and Kashmir: _____
- (b) Kerala: _____
- (c) Rajasthan: _____
- (d) North-east India: _____

Answer 4:

- (a) *Jammu and Kashmir*: moderately hot and wet climate for a part of the year, extremely cold in winter.
- (b) *Kerala*: very hot and wet as it is a coastal area.
- (c) *Rajasthan*: hot and dry because the temperature is high during most part of the year. But during winter, which lasts only for a few months, the temperature is quite low. This region receives very little rainfall.
- (d) *North-east India*: wet because the northeastern India receives rain for a major part of the year.

Question 5:

Which of the two changes frequently, weather or climate?

Answer 5:

Weather changes frequently.

Question 6:

Following are some of the characteristics of animals:

- | | |
|---------------------------|------------------------------|
| (i) Diets heavy on fruits | (ii) White fur |
| (iii) Need to migrate | (iv) Loud voice |
| (v) Sticky pads on feet | (vi) Layer of fat under skin |
| (vii) Wide and large paws | (viii) Bright colours |
| (ix) Strong tails | (x) Long and large beak |

For each characteristic indicate whether it is adaptation for tropical rainforests or Polar Regions. Do you think that some of these characteristics can be adapted for both regions?

Answer 6:

Tropical rainforests

(i) Diets heavy on fruits, (iv) Loud voice, (v) Sticky pads on feet, (viii) Bright colours, (ix) Strong tails, (x) Long and large beak.

Polar Regions

(ii) White fur, (iii) Need to migrate, (vi) Layer of fat under skin, (vii) Wide and large paws.

I think that different characteristics can be adapted for different regions.

Question 7:

The tropical rainforest has a large population of animals. Explain why it is so.

Answer 7:

In tropical rainforest days and nights are almost equal in length throughout the year. The temperature of these region varies from 15°C to 40°C during the year. These regions get plenty of rainfall. Because of continuous warmth and rain, this region supports wide variety of plants and animals. The climatic conditions in rainforests are highly suitable for supporting an enormous number and a variety of animals. That is why the tropical rainforest has a large population of animals.

Question 8:

Explain, with examples, why we find animals of certain kind living in particular climatic conditions.

Answer 8:

Animals are adapted to the conditions in which they live. These adaptations are the just because of long process of evolution. It would be difficult for them to survive if they are moved to region having different climate conditions than from their habitat. Consider the following examples:

- A polar bear has thick layer of fat under their skin which acts heat insulator. It protects the bear from extreme cold climate of polar region. The polar bear cannot survive if it is moved to hot and dry desert region.
- Monkeys have long tails for grasping branches adapted to live in tropical rain forests. It cannot survive in Polar Regions.

Question 9:

How do elephant living in the tropical rainforest adapt itself?

Answer 9:

It has adapted to the conditions of rainforests in many remarkable ways. It uses its trunk as a nose because of which it has a strong sense of smell. The trunk is also used by it for picking up food. Moreover, its tusks are modified teeth. These can tear the bark of trees that elephant loves to eat. So, the elephant is able to handle the competition for food rather well. Large ears of the elephant help it to hear even very soft sounds. They also help the elephant to keep cool in the hot and humid climate of the rainforest.



Question 10:

A carnivore with stripes on its body moves very fast while catching its prey. It is likely to be found in

- (i) polar regions
- (ii) deserts
- (iii) oceans
- (iv) tropical rainforests

Answer 10:

- (iv) tropical rainforests

Question 11:

Which features adapt polar bears to live in extremely cold climate?

- (i) A white fur, fat below skin, keen sense of smell.
- (ii) Thin skin, large eyes, a white fur.
- (iii) A long tail, strong claws, white large paws.
- (iv) White body, paws for swimming, gills for respiration.

Answer 11:

- (i) A white fur, fat below skin, keen sense of smell.

Question 12:

Which option best describes a tropical region?

- (i) hot and humid
- (ii) moderate temperature, heavy rainfall
- (iii) cold and humid
- (iv) hot and dry

Answer 12:

- (i) hot and humid