

Chapter - 7

Weather, Climate and Adaptation of Animals to Climate

Multiple Choice Questions

1. The maximum and minimum temperature displayed daily in the weather bulletin refer to the –

- (a) highest day temperature and lowest night temperature of the day.
- (b) highest day temperature and highest night temperature of the month.
- (c) temperature recorded at 12 noon and at mid night (00.00 hrs).
- (d) average highest temperature of day and average lowest temperature of night.

Soln:

Answer is (a) highest day temperature and lowest night temperature of the day.

Explanation:

Highest day temperature occurs in the afternoon and lowest temperature of the day occurs in the dawn.

2. Out of the given definitions, which is the most appropriate definition of climate?

- (a) Changes in weather conditions in a year.
- (b) Average weather pattern of many years.
- (c) Change in weather pattern in a few years.
- (d) Weather conditions during summer.

Soln:

Answer is (b) Average weather pattern of many years.

Explanation:

Climate is the weather conditions of an area prevailing for a long period of time.

3. Which of the following briefly describes the desert climate?

- (a) Hot and humid
- (b) Dry and humid
- (c) Hot and dry
- (d) Hot and wet

Soln:

Answer is (c) Hot and dry

Explanation:

In Desert temperature is high during most parts of the year and desert receives very less rainfall hence the climate in desert will be hot and dry.

4. Paheli went to a wildlife sanctuary where she saw dense vegetation of trees, shrubs, herbs and also a variety of animals like monkeys, birds, elephants, snakes, frogs, etc. The most likely location of this sanctuary is in the –

- (a) temperate region**
- (b) tropical region**
- (c) polar region**
- (d) coastal region**

Soln:

Answer is (b) tropical region

Explanation:

Wild life sanctuary which Paheli went was of tropical region because this region has favorable condition to support wide variety of living organisms. Remaining options like temperate region, polar and coastal region will not support variety of wildlife as tropical region.

5. Given below are some adaptive features of animals:

- (i) Layer of fat under the skin**
- (ii) Long, curved and sharp claws**
- (iii) Slippery body**
- (iv) Thick white fur**

Which of them are the adaptive features of a polar bear?

- (a) (i) only**
- (b) (i) and (ii) only**
- (c) (i), (ii) and (iii) only**
- (d) (i), (ii), and (iv) only**

Soln:

Answer is (d) (i), (ii), and (iv) only

Explanation:

To live in extremely cold climate, polar bear has many adaptations, such as:

- (a) Layer of fat under skin for insulation.
- (b) Long curved and sharp claws to walk and run on slippery ice.
- (c) Thick white fur. White colour protects it from predators and thick layer keep it warm.
- (d) Other features are rounded body, small ears and strong sense of smell.

6. Which of the following statement is incorrect for penguins?

- (a) They huddle together
- (b) They cannot swim
- (c) They have webbed feet
- (d) They have streamlined body

Soln:

Answer is (b) They cannot swim

Explanation:

Penguin is white and merges well with the white background. It has a thick skin and a lot of fat to protect it from cold. Penguins huddled together do to keep themselves warm. Like polar bears, penguins are also good swimmers. Their bodies are streamlined and their feet have webs, making them good swimmers.

7. Read the following environmental conditions of tropical rain forests.

- (i) Hot and humid climate
- (ii) Unequal lengths of day and night
- (iii) Abundant rain fall
- (iv) Abundant light and moisture

Identify the conditions from the above list that are responsible for the presence of large number of plants and animals in tropical rain forests.

- (a) (i) and (ii)
- (b) (i) and (iii)
- (c) (i), (iii) and (iv)
- (d) (ii) and (iv)

Soln:

Answer is (c) (i), (iii) and (iv)

Explanation:

The tropical region has generally a hot climate because of its location around the equator. Even in the coldest month the temperature is generally higher than about 15°C. During hot summers, the temperature may cross 40°C. Days and nights are almost equal in length throughout the year. These regions get plenty of rainfall. Because of these reasons tropical rain forests supports large number of plants and animals.

8. The coldest region on earth is the –

- (a) polar region
- (b) tropical region
- (c) temperate region
- (d) coastal region

Soln:

Answer is (a) polar region

Explanation:

Polar regions are covered with snow and it is very cold for most part of the year. For six months the sun does not set at the poles while for the other six months the sun does not rise. In winters, the temperature can be as low as – 37°C.

9. Choose the odd one from the following options :

- (a) Thick layer of fat under the skin
- (b) White fur
- (c) Long grasping tail
- (d) Wide and large feet with sharp claws

Soln:

Answer is (c) Long grasping tail

Explanation:

Long grasping tail is the adaptation found in animals of tropical region whereas others option gives adaptations of animals of polar region.

Very Short Answer Questions

10. “A fish dies when taken out of water whereas a wall lizard will die if kept under water.” Mention the term used to describe such abilities that allow fish and lizard to survive in their respective habitats.

Soln:

Adaptation

11. Give one example of an animal that can live both in water and on land.

Soln:

Frog

12. State whether the following statements are True or False. Correct the false statements.

- (a) It is easy to predict weather rather than climate.
- (b) Since very few prey are available, polar bear does not need to have strong sense of smell.
- (c) Penguins stick together to fight the cold polar climate.
- (d) Tropical rain forests are cool and humid throughout the year because of heavy rains all the time.

Soln:

- a) False- It is easy to predict climate rather than weather.
- b) False- polar bear need to have strong sense of smell.
- c) True
- d) False- Tropical rain forests are hot and humid throughout the year because they are located near the equator.

13. Unscramble the following words using the hints given against them.

- (i) MATLICE (Hint: weather pattern in a region over a period of time)
- (ii) AROPL (Hint: coolest region on earth)
- (iii) TREHMEOMRET (Hint: used to measure temperature)
- (iv) UHIDYTMI (Hint: feature of weather)

Soln:

- (i) Climate
- (ii) Polar
- (iii) Thermometer
- (iv) Humidity

Short Answer Questions

14. Match the animals mentioned in Column I with their characteristic features given in Column II.

Column I	Column II
a) Red eyed frog	i) Very sensitive hearing
b) Penguin	ii) Streamlined body
c) Tiger	iii) Silver-white mane
d) Lion tailed macaque	iv) Sticky pads on feet

Soln:

Column I	Column II
e) Red eyed frog	iv) Sticky pads on feet
f) Penguin	ii) Streamlined body
g) Tiger	i) Very sensitive hearing
h) Lion tailed macaque	ii) Silver-white mane

15. Why is it difficult to predict the weather of a place while it is easy to predict its climate?

Soln:

Because weather can vary over a short period of time whereas climate as it is the average weather pattern taken over a long time.

16. Name two animals each that live in Polar region and Tropical rain forests.

Soln:

Polar region- Polar bear and Penguins

Tropical rain forests- rain deer, tiger

17. Write two common adaptive features of a polar bear which help in keeping it warm.

Soln:

- (a) Layer of fat under skin for insulation.
- (b) Long curved and sharp claws to walk and run on slippery ice.

18. Mention two adaptive features of penguin that help it in swimming

Soln:

Their bodies are streamlined and their feet have webs, making them good swimmers.

19. Differentiate between:

- (i) Weather and climate
- (ii) Humidity and rainfall
- (iii) Climates of polar region and tropical rain forest
- (iv) Maximum and minimum temperatures of the day

Soln:

Weather	Climate
Weather is the daily fluctuation in temperature, humidity, etc.	Climate is the average weather pattern of a place.

Humidity	Rainfall
Humidity indicates the wetness of a place due to amount of moisture in the atmosphere	Rainfall is the drops of water that fall from clouds on the ground.

Polar region	Tropical rain forest
Polar region remains very cold for most part of the year.	Tropical rain forest is hot and humid throughout the year

Maximum temperature	Minimum temperature
Occur in the day, during afternoon	Occurs in the night, at dawn

Long Answer Questions

20. Fill in the blanks in the paragraph given below.

Weather of a place is the day-to-day condition of the a) atmosphere with respect to b) Temperature, c) Humidity, d) rainfall, e) windspeed at that place, while climate is the f) average weather pattern taken over many years.

Soln:

Weather of a place is the day-to-day condition of the a) atmosphere with respect to b) Temperature, c) Humidity, d) rainfall, e) windspeed at that place, while climate is the f) average weather pattern taken over many years.

21. Given below is a list of climatic conditions and some examples of animals. Read them carefully and place the items in the relevant columns as shown.

Penguin, Gorrila, Monkey, Reindeer, Assam, Greenland, Sun does not rise for six months, Hot and humid climate, Days and nights are almost equal in length throughout the year, Winter temperature around – 37°C, Western Ghats

Tropical Rain forest	Polar region
• Hot and humid climate	• Penguin

Soln:

Tropical Rain Forest	Polar Region
● Hot and Humid Climate	● Penguin
● Gorilla	● Reindeer
● Monkey	● Greenland
● Assam	● Sun does not rise for six months
● Day and night are almost equal in length throughout the year	● Winter temperature around -37°C .
● Western Ghats	