

Class: VII
Subject: Chemistry
Topic: Weather, climate and adaptation of animals to climate
No. of Questions: 20

1. 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

Ans: (b)

2. How do elephant living in the tropical rainforest adapt itself.

Ans: Adaptations seen in elephants:
Elephants have well developed sense of smell. It helps the elephant in finding the food. The trunk has powerful muscles which help the elephant in uprooting even a big tree. Elephants have good sense of hearing which help the elephant in sensing danger way in advance. An elephant uses its trunk to sprinkle water all over its body so that it can cool down its body temperature.

3. What is camouflage?

Ans: Camouflage is the built-in protection in the animals which increase their chances of survival by tricking predators.

4. 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

Ans (d)

5. A carnivore with stripes on its body moves very fast while catching its prey. It is likely to be found in
- (a) polar regions
 - (b) deserts
 - (c) oceans
 - (d) tropical rainforests

Ans: (d) Tropical rainforests

6. Is wind a factor affecting climate?

Ans: Yes, because of its direction maybe it comes from America which is a cold place right NOW example going to Philippines which has a hot temperature therefore if the temperature of the wind is cold/hot coming from that particular place the place it should go to could have the opposite temperature of the place that the wind is coming from.

7. 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

Ans (c)

8. Write a short note on the characteristics of Beard ape?

Ans: The lion-tailed macaque (also called Beard ape) lives in the rainforests of Western Ghats. Its most outstanding feature is the silver-white mane, which surrounds the head from the cheeks down to its chin. It is a good climber and spends a major part of its life on the tree. It feeds mainly on fruits. It also eats seeds, young leaves, stems, flowers and buds. This beard ape also searches for insects under the bark of the trees. Since it is able to get sufficient food on the trees, it rarely comes down on the ground.

9. Which option best describes a tropical region?

- (a) hot and humid
- (b) moderate temperature, heavy rainfall
- (c) cold and humid
- (d) hot and dry

Ans: (a) hot and humid

10. Why is camouflage important for animals?

Ans: Many tropical animals have sensitive hearing, sharp eyesight, thick skin and a skin colour which helps them to camouflage by blending with the surroundings. This helps them to protect themselves from predators. Example, big cats like lions and tigers have thick skin and sensitive hearing.

11. The coldest region on earth is the-

- A. Polar region
- B. Tropical region
- C. Temperate region
- D. Coastal region

Ans (a)

12. Describe the adaptations of the polar bear in the polar climatic condition.

Ans: Polar bears have white fur so that they are not easily visible in the snowy white background which help it to protect them from their predators. It also helps them in catching their prey.

- They have two thick layers of fur to protect them from extreme cold.

- They also have layer of fat under their skin.

- The polar bear goes for swimming for physical activities on warm days necessary for cooling.

-Its paws are wide and large, which help it not only to swim well but also to walk with ease in the snow.

- Polar bears can remain under water for long durations.

- It has a strong sense of smell so that it can catch its prey for food.

13. Which features adapt polar bears to live in extremely cold climate?
- A. A white fur, fat below skin, keen sense of smell.
 - B. Thin skin, large eyes, a white fur.
 - C. A long tail, strong claws, white large paws.
 - D. White body, paws for swimming, gills for respiration.

Ans: (A) A white fur, fat below skin, keen sense of smell.

14. What are adaptations? Explain the types of adaptations.

Ans An adaptation is trait of an organism that has been favored by natural selection.

Adaptations are of following types:-

Structural adaptations are special body parts of an organism that help it to survive in its natural habitat (e.g., skin colour, shape, body covering).

Behavioral adaptations are special ways of a particular organism that behaves to survive in its natural habitat.

Physiological adaptations are systems present in an organism that allow it to perform certain biochemical reactions (e.g., making venom, being able to keep a constant body temperature).

15. 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

Ans (c)

16. "All the changes in the weather are caused by sun." Do you agree with this statement? If yes, then explain.

Ans Yes, the sun is the primary source of energy that causes changes in the weather because sun is a huge sphere of hot gases at a very high temperature. The distance of the sun from us is very large. Even then, the energy sent out by the sun is so huge that it is the source of all heat and light on the earth. Energy absorbed and reflected by the earth's surface, oceans and the atmosphere play important roles in determining the weather at any place. Weather varies from place to place. It is different in a desert, near coastal areas or near a mountain.

17. Name the instrument used to measure rainfall.

Ans: Rain gauge

18. Explain with examples how animals have adapted themselves to overcome the competition for food and shelter in the rainforests.

Ans : To overcome the competition for food and shelter, some animals are adapted to get food which is not easily reachable. Example, red-eyed frog has developed sticky pads on its feet to help to climb trees on which it lives. Another example is of the Toucan bird, which possesses a long, large beak. This helps a toucan to reach the fruits on branches which are otherwise too weak to support its weight.

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

Ans: The climatic conditions in rainforests are highly suitable for supporting an enormous number and variety of animals. It is due to the following reasons :

1. Climate is not and gets plenty of rainfall. Because of continuous warmth and rain, this region supports wide variety of plants and animals.
2. The region being near to equator, receives more solar energy available, it contributes to higher productivity in terms of food and population.
3. Tropical rainforest remained less disturbed for millions of years, thus giving longer time of evolution. It resulted in wide variety of species.

20. 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 the place will be_____ and_____.
- (iii) The two regions of the earth with extreme climatic conditions are_____ and_____.
- (iv) The weather reports are prepared by the _____ department of the government.
- (v) Special features of an animal to live in its surrounding is called _____.
- (vi) One of the important feature of tropical region is _____.
- (vii) The temperature, humidity, rainfall and other factors are called _____of the weather.

Ans: (i) climate of the place (ii) hot and dry (iii) tropical and polar region (iv) meteorological (v) adaptation (vi) hot climate (vii) elements