

05-08-19

## Chapter-7

### Weather, Climate & Adaptation of Animals to climate

#### \* Summary

- 1) The day today conditions of the atmosphere at a place with respect to the temperature, humidity, rainfall, wind speed etc is called the weather at that place.
- 2) The weather is generally not the same on any two days and week after week.
- 3) The Maximum temperature of the days occur generally in the afternoon while the minimum temperature occur in the early time.
- 4) Average weather pattern taken over a long time say 25 years is called a climate of the place.
- 5) The tropical and the polar region of the earth which have severe climate conditions.
- 6) Animal in the polar regions are adapted to the extremely cold climate by having some special characteristics. Such as white fur, strong sense of smell, a layer of fat under the skin, white & large paws for walking & swimming etc.
- 7) Animal in the tropical rainforest are adapted such that they eat different kind of food to overcome the competition for food & shelter.



3) = Some adaptations of the animals living in the tropical rainforest includes living on the tree. Development of strong tails, long & large beaks, bright colours, sharp patterns, loud voice diet of food sensitive hearing, sharp eyesight, thick skin, ability to it can't do protect themselves from predators

### Questions/Ans

Q:1 = Why do birds migrate?

A:1 = Migration is when animals move on a regular cycle. For ex- caribou in the Arctic go South in winter and return in summer when it is warmer. Many birds migrate, such as geese & storks.

Q:2 = What is meant by 'adaptation'?

A:2 = The favourable features and habits that help the organisms to survive and breed in their surroundings (habitat) is called adaptation.

Q:3 = What are big cats?

A:3 = Wild animals such as, lions, tigers and leopards are called big cats.

Q:4 = What is humidity?

A:4 = Humidity is measure of moisture present in the air. is called humidity.

Q:5 = What is meant by weather of a place?

A:5 = The day to day conditions of the atmosphere at a place with respect to the temperature, humidity rainfall. Wind



Speed etc is called weather of a place.

Q:6 How do Shark ears and Kails help a polar bear?

A:6 Shark's ears and Kails help a polar bear as prevents the loss of body heat through these parts.

Q:7 How is relative humidity expressed?

A:7 Relative humidity is the amount of water vapour present in the air. It is expressed as a percentage of the maximum amount of water vapour the air can hold at the temperature.

### Short Answer Type-II Questions:-

Q:1-a: How do elephants keep themselves cool in the hot & humid climate of the tropical rainforest?

A:1-a: They have strong sense of smell and use its trunk for smell and ~~use it~~ to hold food. They also use their trunk to hold food. They have long ears which help them in keeping cool in hot them in humid climate. long ears help them in hearing very soft sound.

Q:2-b What are tusks? Write one use of tusk.

A:2 The elephant has big & long pointed teeth called tusk

\* Tusks are modified teeth of the elephant. It uses the tusks to tear off the bark of trees that it eats as food. It also uses its tusks for fighting with enemies and protective ~~skill~~.



Q:2 = What are the various type of information usually carried by the daily weather report in a newspaper?

A:2 = We get the following information from this weather report.

1) = Temperature :- The maximum temperature during the past 24 hours was  $36.5^{\circ}\text{C}$  ( $+3^{\circ}$  in brackets means maximum temperature is  $3^{\circ}\text{C}$  above normal).

2) = Moonrise and Moonset :- The moon will rise on Sunday at 4.45 pm and will set on Monday at 3.03 am.

3) = Sunset and Sunrise :- The sun will set on Sunday at 7.11 pm and will rise on Monday at 3.03 am.

4) = Humidity (measure of the moisture in air) :- The maximum humidity recorded in the past 24 hours was 66% and the minimum humidity was 53%.

Q:3 = How do penguins keep themselves warm? Give three ways.

A:3 = They are white in colour with black-coloured feathers on their back. The white colour merges well with the white surrounding of ice and snow. The black coloured feathers on the penguin back absorb heat from the sun and help them keep warm during the day.

Q:4 = Write any three adaptations in monkeys that help them live on the trees in tropical rainforest?

A:4 = The molars are specially adapted for processing leaves, which they spend most of their day doing. These leaves are fermented by the enlarged caecum within the howler monkey's



Gastrointestinal tract. Strong prehensile tails enable howler monkeys to grip & hang from branches.

Q.15.2 How does Sun cause wind?

Ans - Wind caused by a difference in pressure from one area to another area on the surface of the earth. Air naturally moves from high to low pressure, and when it does so, it is called wind. Generally, we can say that the cause of the wind is the uneven heating of Earth's surface by the sun.

b) = What is the difference between weather and climate?

b) = Weather is the day-to-day state of the atmosphere, and its short-term variation in minutes to week. People generally think of weather as the combination of temperature, humidity, precipitation, cloudiness, visibility, and wind. Climate is the weather of a place averaged over a period of time, often 30 years.

Q \* Long Answer Questions :-

Q.1 = Discuss various adaptations in big cats.

Ans = The various adaptations in big cats :-

\* The big cats (lions & tigers) eat only the meat (or flesh) of other animals. For that, they have a highly developed sense of smell that helps them locate their prey (such as deer).

\* The yellow-brown colour of lion and the yellow-brown with black stripes of tiger help them camouflage.



by blending with their surrounding. It protects them from their predators. It also helps them in catching their prey.

- \* The big cats have sharp eyesight to locate their prey from a distance.
- \* The big cat run very fast that helps them catch their prey.
- \* The big cats have long, strong & sharp claws in their front legs to catch and hold their prey.

Q:2- Animals living in polar regions adapt themselves to survive and breed in their habitat.

(a)- List the adaptations in polar bears that help them survive in polar regions.

(a)- They have the following Adaptions :-

- \* Polar bears have two thick layer of fur on their body. The outer thick layer of fur is made of hollow hair.
- \* They have a thick layer of fat called blubber under the skin that keeps the body warm in extremely cold climate.
- \* They have white coloured fur, so that they are not easily visible in the snowy white background.
- \* They have a strong sense of smell so that they can locate and catch their prey for food.
- \* They have short ears & tail. This prevents the loss of body heat through these parts.



- \* They have long, curved & sharp claws that walk on ice.
- \* Physical activities on warm days make the polar bear feel hot. So, they cool themselves by swimming in the icy sea. They move slowly to avoid getting over-heated.
- \* Their paws are wide & large that help them not only in swimming well but also in walking with ease on the snow.
- \* They are excellent swimmers. While swimming under water they close their nostrils and can remain under water for long durations.

b) = What value do we learn from these animals that adapt themselves?

b) = The animals ~~are~~ adaptations are very important for the animals because adaptations are safe & care of the animal. Animals are adapt so, it is can we easily survive.

A  
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