Worksheet:
Weather and Climate

MCQs

Question 1: The condition of the atmosphere at a given place and time is called

(a) season

(b) altitude

(c) climate

(d) weather

Ans.

Correct Answer is Option D.

Weather, state of the atmosphere at a particular place during a short period of time. It involves such atmospheric phenomena as temperature, humidity, precipitation (type and amount), air pressure, wind, and cloud cover.

Question 2: The Sun's rays fall directly on the areas near the

(a) North Pole

(b) South Pole

(c) Equator

(d) Antarctic Circle

Ans.

Correct Answer is Option C.

The rays of the Sun can reach only half of the Earth's surface at one time. The sun's rays extend to the North and South Poles equally only twice during the year, on September 23 and March 21. On these two days, the vertical rays of the Sun fall directly on the Equator. From September 23 to December 21, the Sun's rays gradually extend a few degrees beyond the South pole and recede from the North Pole. On December 21, the rays extend 23 1/2 beyond the South Pole and fail to reach the North Pole by the same number of degrees. At this time, the area surrounding the South Pole known as the Antarctic Circle receives sunlight and the Arctic Circle, surrounding the North Pole, is without sunlight.

Question 3: The water vapour or moisture present in the air is called

(a) rain

(b) cloud

(c) humidity

(d) dew

Ans.

Correct Answer is Option C.

The amount of water vapor in the air is called humidity. The amount of water vapor in the air as compared with the amount of water that the air could hold is called humidity.

Question 4: It is hot and humid throughout the year in the

(a) Temperate Zone

(b) Torrid Zone

(c) Frigid Zone

(d) mountains

Ans.

Correct Answer is Option A.

We can divide the Earth into three heat zones on the basis of the difference in their temperature. Tropic of Cancer and the Tropic of Capricorn. The climate here is hot and humid throughout the year. are called the Temperate Zones.

Fill in the blanks

Question 5:

(a) The_____of a place does not change over a long period of time.

(b) The rays of the Sun become_____as one moves away from the Equator.

(c) The_____Zones remain cold all the year round.

(d) The world is divided into_____major climatic regions.

(e) Places near the coast have a_____climate.

Ans.

- The **climate** of a place does not change over a long period of time.
- The rays of the Sun become **slanting** as one moves away from the Equator.
- The **frigid zone** Zones remain cold all the year round.
- The world is divided into **five** major climatic regions.
- Places near the coast have a **moderate** climate.

Tips:

- The climate of a place does not change over a long of period of time.
- The sun rays fall almost straight at the equator while they fall slanting as we move away from the equator towards the poles.
- Frigid zones remain cold all the time.
- World climates are generally divided into five large regions: tropical, dry, mid-latitude, high latitude, and highland.
- Coastal areas will generally have more moderate temperatures than inland areas because of the heat capacity of the ocean.

Answer these questions.

Question 6: Why do places near the Equator receive more heat than those near the poles?

Ans.

The places near the Equator receive more heat than those near the poles because the equator is closer to the sun. The sun's energy is more spread out at the equator. The sun's rays hit the earth's surface at a higher angle at the equator.

Question 7: Why does Chennai have a moderate climate?

Ans.

Chennai features tropical wet and dry climate. Its nearest central position is the main reason for the moderate climate.

Question 8: Describe the climatic conditions of each heat zone.

Ans.

Heat zones are the different zones of the earth, where the sun's rays fall differently, thus causing different climate patterns. These zones are called the Torrid Zone, the two Temperate Zones, and the two Frigid Zones. The Torrid

Zone is very hot since the sun shines overhead here. The Temperate Zones maintain a moderate climate, and the Frigid Zones are extremely cold.

Question 9: Write the difference between

(a) weather and climate.

Ans.

Basis	Weather	Climate
Meaning	Weather is day-to-day information of the changes in the atmospheric condition in any area.	Climate is statistical weather information that provides information about the average weather condition of a particular place over a long period.
Duration	The short term atmospheric condition of any place is the weather, which may vary by time-to-time.	The long term average weather atmospheric condition of a place or country is the climate.
Changes	The changes in the weather condition can be observed very frequently. The changes in climate take a longer time to change.	The changes in climate take a longer time to change.

(b) moderate climate and extreme climate.

Ans.

- In moderate climate,it is neither too hot in summers nor cold in winters. In extreme climate, the summers are too hot and the winters are too cold.
- The annual and average range of temperature is low in moderate climate and more in extreme climate.
- The moderate temperature is generally found in coastal areas, whereas the extreme climate is generally found in inland areas.
- Ex of Moderate temperature is Chennai and that of Extreme is Delhi.

Question 10: How do winds influence the climate of a place?

Ans.

Estion 10: How do winds influence the climate of a place?

The winds affect the climate because they create the way hot and cold air is moved around.Wind currents can push warm or cold air in the direction of the currents.

They can even push storms in the direction the current is flowing. The wind movement also influences the climate of a particular place.

Think and answer

Question 11:

Shimla and Ludhiana are almost at the same distance from the Equator. Then, why is Shimla much colder than Ludhiana?

Ans.

himla and Ludhiana are almost at the same distance from the Equator but Shimla is located at a much higher altitude than Ludhiana. The places located at higher altitude are much colder than those at lower altitudes. That is why Shimla is colder than Ludhiana.