

Introduction to Climatology

Climatology · Answer Key · 8 Questions

1. What is the primary source of energy that drives Earth's climate system?

- A) Geothermal heat from the Earth's core
- B) Solar radiation from the Sun**
- C) Tidal forces from the Moon
- D) Fossil fuel combustion

2. Which layer of the Earth's atmosphere is primarily responsible for weather phenomena?

- A) Stratosphere
- B) Mesosphere
- C) Troposphere**
- D) Thermosphere

3. What gas is considered a major greenhouse gas, trapping heat in the atmosphere?

- A) Nitrogen
- B) Oxygen
- C) Argon
- D) Carbon Dioxide**

4. The long-term average of weather patterns in a particular region is known as its:

- A) Weather
- B) Climate**
- C) Atmosphere
- D) Meteorology

5. What is the process by which water vapor in the atmosphere changes into liquid water, forming clouds?

- A) Evaporation
- B) Transpiration
- C) Condensation**
- D) Precipitation

6. The Earth's rotation influences the direction of winds and ocean currents through which effect?

- A) Greenhouse effect
- B) Coriolis effect**
- C) Albedo effect
- D) Latent heat effect

7. What is the term for the reflectivity of a surface, which determines how much solar radiation it absorbs or reflects?

- A) Emissivity
- B) Insolation
- C) Albedo**
- D) Convection

8. Which of the following is a natural process that plays a role in the Earth's climate cycles?

- A) Volcanic eruptions**
- B) Industrial pollution
- C) Deforestation
- D) Urbanization