

Global Physics Geography

Physics · Answer Key · 10 Questions

1. The Earth's magnetic field originates primarily from which region?

- A) The Earth's crust
- B) The Earth's outer core**
- C) The Earth's mantle
- D) The Earth's ionosphere

2. Which of the following locations experiences the greatest diurnal range in temperature due to its continental climate?

- A) London, United Kingdom
- B) Sydney, Australia
- C) Verkhoyansk, Russia**
- D) Rio de Janeiro, Brazil

3. The phenomenon of the Aurora Borealis (Northern Lights) is most commonly observed at high geomagnetic latitudes due to the interaction of solar wind particles with which layer of the Earth's atmosphere?

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

4. The highest point on Earth, Mount Everest, experiences a significantly lower boiling point of water compared to sea level. This is primarily a consequence of:

- A) Increased atmospheric pressure
- B) Decreased atmospheric pressure**
- C) Higher humidity
- D) Lower humidity

5. The Dead Sea, located between Israel and Jordan, is renowned for its extremely high salinity. This leads to a significantly higher buoyant force compared to freshwater, allowing people to float easily. This increased buoyancy is a direct result of:

- A) Higher water density**
- B) Lower water density
- C) Higher water temperature
- D) Lower water temperature

6. The phenomenon of 'Global Dimming' observed over several decades in the late 20th century, which affected solar radiation reaching the Earth's surface in certain regions, was largely attributed to:

- A) Increased greenhouse gas concentrations
- B) Increased volcanic activity
- C) Increased atmospheric aerosols**
- D) Decreased solar output

7. The Atacama Desert in Chile is one of the driest places on Earth. Its aridity is partly due to its location in the rain shadow of the Andes Mountains and also its position under which semi-permanent high-pressure system?

- A) The Icelandic High
- B) The Azores High
- C) The Pacific High**
- D) The Siberian High

8. The Coriolis effect, which influences large-scale wind and ocean currents, is a direct consequence of the Earth's:

- A) Gravitational pull
- B) Rotational motion**
- C) Orbital velocity
- D) Axial tilt

9. Tidal forces, primarily responsible for the rise and fall of ocean tides, are caused by the gravitational pull of the Moon and to a lesser extent, which other celestial body?

- A) Jupiter
- B) Mars
- C) The Sun**
- D) Venus

10. The variation in gravitational acceleration across the Earth's surface is influenced by factors such as altitude and the density of the underlying crust. Regions with denser geological formations, like certain mountain ranges, tend to have:

- A) Slightly lower gravitational acceleration
- B) Slightly higher gravitational acceleration**
- C) No discernible change in gravitational acceleration
- D) The same gravitational acceleration as sea level