

Advanced Physical Geography Quiz

Physical Geography · Answer Key · 22 Questions

1. Which of the following is the primary mechanism driving the formation of abyssal plains on the ocean floor?

- A) Volcanic outgassing
- B) Glacial erosion
- C) Sediment deposition from turbidity currents**
- D) Tectonic subduction

2. The Coriolis effect, significant in large-scale atmospheric and oceanic circulation, is a consequence of Earth's:

- A) Elliptical orbit
- B) Axial tilt
- C) Rotation**
- D) Magnetic field

3. What geological process is primarily responsible for the formation of shield volcanoes?

- A) Explosive, viscous lava eruptions
- B) Rifting and basaltic lava flows**
- C) Subduction zone magmatism
- D) Metamorphism of pre-existing rock

4. The 'Rain Shadow Effect' is a phenomenon most directly associated with which geographical feature?

- A) Large river deltas
- B) Coastal upwelling zones
- C) Mountain ranges**
- D) Arid desert basins

5. Which biogeographic realm is characterized by the highest level of endemism, particularly among its marsupial fauna?

- A) Afrotropical
- B) Neotropical
- C) Australasian**
- D) Indomalayan

6. The Doldrums, a zone of equatorial calms, is characterized by:

- A) Strong westerly winds
- B) Persistent high-pressure systems
- C) Near-surface convergence and rising air**
- D) Intense thunderstorm activity

7. Karst topography, featuring sinkholes, caves, and underground drainage, is typically formed in which type of bedrock?

- A) Granite
- B) Sandstone
- C) Limestone**
- D) Basalt

8. Permafrost, ground that remains frozen for two or more consecutive years, is most extensively found in:

- A) Tropical rainforests
- B) Temperate grasslands
- C) High-latitude and high-altitude regions**
- D) Coastal desert environments

9. The formation of fjords is a direct result of the erosional power of:

- A) Wind
- B) Rivers
- C) Glaciers**
- D) Ocean waves

10. Which atmospheric layer is responsible for most weather phenomena?

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

11. The 'Ring of Fire' is a zone of intense seismic and volcanic activity predominantly associated with which type of plate boundary?

- A) Divergent
- B) Transform
- C) Convergent**
- D) Passive

12. The Humboldt Current, a major cold ocean current, flows along the western coast of which continent?

- A) North America
- B) Africa
- C) South America**
- D) Australia

13. Which type of weathering involves the breakdown of rocks through chemical reactions with water and atmospheric gases?

- A) Mechanical weathering
- B) Physical weathering
- C) Biological weathering
- D) Chemical weathering**

14. The Great Artesian Basin, one of the largest and most important groundwater resources globally, is located in which country?

- A) United States
- B) Canada
- C) Australia**
- D) Russia

15. The Hadley Cell, a large-scale atmospheric circulation pattern, plays a significant role in distributing heat and moisture between the tropics and:

- A) The poles
- B) The mid-latitudes
- C) The equatorial regions
- D) The subtropics**

16. What is the primary energy source driving the Earth's water cycle?

- A) Geothermal heat
- B) Tidal forces
- C) Solar radiation**
- D) Earth's internal heat

17. Moraines are depositional landforms created by:

- A) Aeolian processes
- B) Fluvial erosion
- C) Glacial ice movement**
- D) Mass wasting

18. The Albedo Effect refers to the Earth's ability to:

- A) Absorb solar radiation
- B) Reflect solar radiation**
- C) Retain heat
- D) Release heat

19. The formation of basaltic lava plateaus, such as the Deccan Traps, is typically associated with:

- A) Shield volcanism
- B) Stratovolcanic eruptions
- C) Flood basalt provinces**
- D) Caldera collapse

20. Which ocean current is responsible for the cool and often foggy climate of the California coast?

- A) Kuroshio Current
- B) North Atlantic Drift
- C) California Current**
- D) Gulf Stream

21. The process by which solid rock is melted into magma is called:

- A) Lithification
- B) Metamorphism
- C) Partial melting**
- D) Decomposition

22. Which of the following is a characteristic feature of a delta formed by a meandering river system?

- A) V-shaped valleys
- B) Arid, sandy plains
- C) Distributary channels**
- D) Cirque basins