

Advanced Earth Science & Bio-Geology

Earth Science · Practice Test · 10 Questions

1. Which geological eon, occurring before the Phanerozoic, saw the first appearance of the Ediacaran biota?

- A) Archean
- B) Proterozoic
- C) Hadean
- D) Paleozoic

2. The 'Great Oxygenation Event', which occurred approximately 2.4 billion years ago, was primarily triggered by which group of organisms?

- A) Green algae
- B) Cyanobacteria
- C) Lichens
- D) Radiolarians

3. Which specific form of calcium carbonate is most commonly used by scleractinian corals to build their skeletal structures?

- A) Calcite
- B) Dolomite
- C) Aragonite
- D) Siderite

4. In the context of the nitrogen cycle, what is the name of the process where bacteria convert nitrates back into nitrogen gas?

- A) Denitrification
- B) Nitrification
- C) Ammonification
- D) Nitrogen fixation

5. What is the primary mechanism by which giant tube worms (*Riftia pachyptila*) obtain energy in the absence of sunlight at hydrothermal vents?

- A) Chemosynthesis
- B) Radiotrophy
- C) Osmotrophy
- D) Phagocytosis

6. During the Carboniferous period, what environmental factor is believed to have allowed insects like Meganeura to reach wingspans of 70 cm?

- A) Lower gravity
- B) Increased humidity
- C) Higher atmospheric oxygen
- D) Reduced predation

7. Which survival state allows Tardigrades to withstand extreme temperatures, radiation, and the vacuum of space by dehydrating their bodies?

- A) Cryptobiosis
- B) Aestivation
- C) Diapause
- D) Hibernation

8. What is the specific term for the dark, wind-blown dust consisting of soot and rock particles that reduces the albedo of glaciers?

- A) Regolith
- B) Cryoconite
- C) Loess
- D) Tephra

9. The 'Catatumbo lightning' is a unique atmospheric phenomenon occurring at the mouth of the Catatumbo River in which country?

- A) Venezuela
- B) Brazil
- C) Indonesia
- D) Democratic Republic of the Congo

10. Which bird species holds the record for the longest recorded non-stop migratory flight, covering over 12,000 km from Alaska to New Zealand?

- A) Arctic Tern
- B) Bar-tailed Godwit
- C) Wandering Albatross
- D) Sooty Shearwater