

Advanced Geological Wonders

Geology · Practice Test · 12 Questions

1. Which geological feature is formed by the subduction of the Nazca Plate beneath the South American Plate?

- A) The East African Rift
- B) The Andes Mountains
- C) The Himalayas
- D) The Appalachian Mountains

2. The Bushveld Igneous Complex, containing the world's largest reserves of platinum-group metals, is located in which country?

- A) South Africa
- B) Canada
- C) Russia
- D) Australia

3. What is the name of the 'super-continent' that existed approximately 1.1 billion to 750 million years ago, preceding Pangea?

- A) Gondwana
- B) Laurasia
- C) Rodinia
- D) Pannotia

4. Which mineral is the primary constituent of the Earth's lower mantle, making it the most abundant mineral on the planet?

- A) Quartz
- B) Olivine
- C) Bridgmanite
- D) Calcite

5. The Deccan Traps in India were formed primarily by what geological process?

- A) Glacial scouring
- B) Large igneous province volcanic activity
- C) Continental collision
- D) Submarine sedimentation

6. Which tectonic plate is currently responsible for the rapid mountain building of the Southern Alps in New Zealand?

- A) Pacific Plate and Indo-Australian Plate
- B) Nazca Plate and South American Plate
- C) Eurasian Plate and African Plate
- D) Philippine Sea Plate and Pacific Plate

7. Which sedimentary rock is primarily composed of the shells and skeletons of marine microorganisms, such as coccolithophores?

- A) Shale
- B) Chalk
- C) Sandstone
- D) Conglomerate

8. The Afar Triple Junction is a geological point where three tectonic plates are pulling apart. Which three plates meet here?

- A) African, Eurasian, and Arabian
- B) Nubian, Somalian, and Arabian
- C) Pacific, North American, and Juan de Fuca
- D) Eurasian, Indian, and Australian

9. What is the term for the geological transition zone where the Earth's crust thins significantly before becoming oceanic crust?

- A) Passive margin
- B) Convergent boundary
- C) Transform fault
- D) Hotspot track

10. Which isotope system is most commonly used to date the crystallization age of Zircon minerals?

- A) Carbon-14
- B) Potassium-Argon
- C) Uranium-Lead
- D) Rubidium-Strontium

11. The Vredefort Crater in South Africa holds the distinction of being the world's largest verified impact structure. Approximately how old is it?

- A) 2 billion years
- B) 65 million years
- C) 500 million years
- D) 10 million years

12. Which layer of the Earth exhibits plastic deformation and is the primary source of magma for mid-ocean ridges?

- A) Inner core
- B) Lower mantle
- C) Asthenosphere
- D) Lithosphere