

Oceanic Frontiers: Ancient Cities, Volcanic Fury, and Deep-Sea Discoveries A

Pacific Discoveries · Practice Test · 15 Questions

1. Recent archaeological research has revised the estimated age of ancient structures on Tongatapu, Tonga, indicating they were built around what year A.D.?

- A) 1000 A.D.
- B) 300 A.D.
- C) 500 A.D.
- D) 1200 A.D.

2. According to a 2024 report, the South-West Pacific experienced its hottest year on record, with significant increases in which of the following climate indicators?

- A) Glacier extent and ice shelf stability
- B) Sea surface temperatures and marine heatwaves
- C) Atmospheric pressure and wind speed
- D) Average rainfall and humidity

3. What significant discovery regarding human migration into the Pacific was made with the finding of the oldest plant artifact outside of Africa, located in West Papua?

- A) It suggests humans arrived in the Pacific only 10,000 years ago.
- B) It indicates humans were skilled seafarers and arrived before 50,000 years ago.
- C) It shows humans exclusively used a southern migration route.
- D) It points to the first use of metal tools in early Pacific settlements.

4. The Pacific Ring of Fire has shown an unprecedented surge in volcanic activity. How many confirmed eruptions occurred in 2024 from 65 different volcanoes, a significant increase from previous years?

- A) 30
- B) 55
- C) 74
- D) 90

5. Researchers have discovered 24 new deep-sea amphipod species in the Clarion-Clipperton Zone (CCZ) of the central Pacific Ocean. What notable evolutionary finding was also part of this discovery?

- A) A new species of bioluminescent coral.
- B) A new family and an entirely new superfamily of amphipods.
- C) Evidence of a previously unknown shallow-water ecosystem.
- D) Fossilized remains of ancient marine reptiles.

6. A new analysis by NASA's sea level change team indicates that by the 2050s, nearly all Pacific Island nations will experience an increase in high-tide flooding days by what factor?

- A) Double
- B) Triple
- C) An order of magnitude
- D) Five times

7. Recent genomic studies of Near Oceania populations have revealed interbreeding with which group of ancient hominins?

- A) Neanderthals
- B) Homo erectus
- C) Denisovans
- D) Australopithecus

8. The 'State of the Climate in the South-West Pacific 2024' report highlighted that 2024 was the warmest year on record for the region. What was a key contributing factor mentioned in the report?

- A) A strong La Niña event
- B) Increased solar radiation
- C) The 2023-2024 El Niño event
- D) Reduced greenhouse gas emissions

9. In the deep Pacific Ocean, scientists discovered a formation on the ocean floor that resembled a 'yellow brick road' at a depth of over 3,000 meters. What geological process is thought to be responsible for this formation?

- A) Erosion by deep-sea currents
- B) Impact crater from a meteorite
- C) Seafloor spreading at a mid-ocean ridge
- D) Volcanic activity and seamounts

10. The Pacific Ring of Fire has seen a significant increase in seismic activity. What was the magnitude of a notable earthquake on May 23, 2026, that occurred west of the Kamchatka Peninsula and displayed an unusual faulting mechanism?

- A) 6.1
- B) 5.3
- C) 7.0
- D) 4.5

11. A recent study utilizing measurements of rare isotopes in a ferromanganese crust from the Pacific Ocean concluded that debris from a giant cosmic explosion is still reaching Earth. Approximately how long ago did this explosion occur?

- A) 1 billion years ago
- B) 10 million years ago
- C) 500 million years ago
- D) 2 billion years ago

12. What is a key objective of the Innovation Grant Facility (IGF) for Pacific Agro-SMEs, which supports agribusiness development in countries like Fiji and Samoa?

- A) To fund large-scale industrial fishing operations.
- B) To provide grants for accessing knowledge, technologies, and expertise to improve agribusiness.
- C) To subsidize the import of foreign agricultural products.
- D) To develop new tourism infrastructure.

13. In the South-West Pacific, 2024 saw unprecedented ocean warming. According to the WMO report, approximately how much of the global ocean surface was affected by marine heatwaves?

- A) Less than 1%
- B) Approximately 5%
- C) Over 10%
- D) Around 25%

14. Australian astronomers, using a new technology called CRACO with the ASKAP radio telescope, have recently discovered new astronomical objects. Which of these was NOT among the discoveries mentioned?

- A) Fast radio bursts
- B) Sporadically-emitting neutron stars
- C) Brown dwarf planets
- D) Pulsars (improved location data)

15. The 'State of the Climate in the South-West Pacific 2024' report noted an unprecedented tropical cyclone season in the Philippines. How many storms occurred between September and November 2024?

- A) 5
- B) 8
- C) 12
- D) 15