

Advanced Oceanographic Principles

Oceanography · Answer Key · 8 Questions

1. Which specific zone of the ocean is defined by the depth to which sunlight can penetrate, typically extending to about 200 meters?

- A) Bathypelagic zone
- B) Photic zone**
- C) Abyssal zone
- D) Hadal zone

2. What is the primary driver of the deep-ocean thermohaline circulation, often referred to as the 'Global Conveyor Belt'?

- A) Lunar gravitational pull
- B) Differences in water density**
- C) Surface wind friction
- D) Tectonic plate movement

3. Which mineral salt is the most abundant dissolved solid found in Earth's ocean water?

- A) Magnesium sulfate
- B) Calcium carbonate
- C) Sodium chloride**
- D) Potassium bromide

4. What is the term for the steep transition layer in the ocean where temperature drops rapidly with increasing depth?

- A) Halocline
- B) Pycnocline
- C) Thermocline**
- D) Bathymetry

5. In the context of coastal processes, what is the name for a strong, narrow surface current that flows away from the shore, perpendicular to the coastline?

- A) Longshore current
- B) Rip current**
- C) Upwelling
- D) Gyre

6. Which of the following describes the 'benthic' environment?

- A) The pelagic open water column
- B) The sea floor and the organisms living there**
- C) The area affected by tidal variation
- D) The zone of maximum photosynthetic activity

7. What phenomenon causes the deflection of major ocean currents to the right in the Northern Hemisphere and to the left in the Southern Hemisphere?

- A) The Coriolis effect**
- B) The Beaufort scale
- C) Ekman transport
- D) El Niño-Southern Oscillation

8. The deepest point in the world's oceans, the Challenger Deep, is located within which oceanic trench?

- A) Tonga Trench
- B) Philippine Trench
- C) Mariana Trench**
- D) Peru-Chile Trench