Ocean Trivia

Use this key to check answers and read the explanations.

1. What gives ordinary seawater its salty taste?
   - A. Dissolved salts
   - B. Dissolved oxygen
   - C. Suspended sand
   - D. Heat stored near the surface

   Correct answer: A. Dissolved salts
   Seawater contains dissolved ions. Sodium and chloride are the most abundant and are the ingredients of common salt.

2. Which named ocean region does NOAA identify as surrounding Antarctica?
   - A. Indian Ocean
   - B. Arctic Ocean
   - C. Southern Ocean
   - D. Atlantic Ocean

   Correct answer: C. Southern Ocean
   The Southern Ocean is the named region of the global ocean that circles Antarctica.

3. A sheltered coastal waterway receives fresh river water and salty ocean water. What is this kind of waterway called?
   - A. A tidal flat
   - B. An estuary
   - C. A continental shelf
   - D. A reef crest

   Correct answer: B. An estuary
   In a typical coastal estuary, freshwater from land mixes with saltwater from the ocean.

4. Reef-building corals consist of tiny organisms called polyps. What kind of organisms are the polyps?
   - A. Algae
   - B. Plants
   - C. Fungi
   - D. Animals

   Correct answer: D. Animals
   Coral polyps are animals. Many reef-building corals live in close association with algae.

5. What is the collective term for organisms that drift with currents because they cannot swim strongly enough to resist them?

A. Nekton
B. Plankton
C. Benthos
D. Reef builders

Correct answer: B. Plankton
Plankton include many organisms that move with the water. The group includes both photosynthetic organisms and animals.

6. Which object makes the largest contribution to the forces that generate Earth's ocean tides?

A. The Moon
B. The Sun
C. Jupiter
D. Mars

Correct answer: A. The Moon
The Moon produces the largest tide-generating effect on Earth. The Sun also contributes to the tidal pattern.

7. Which warm current flows north along part of the eastern United States before continuing into the North Atlantic?

A. Canary Current
B. Labrador Current
C. California Current
D. Gulf Stream

Correct answer: D. Gulf Stream
The Gulf Stream carries warm water from the western North Atlantic near the U.S. East Coast out across the Atlantic.

8. What name describes the upper ocean zone with enough sunlight for widespread photosynthesis?

A. Twilight zone
B. Midnight zone
C. Euphotic zone
D. Abyssal zone

Correct answer: C. Euphotic zone
The euphotic zone is the sunlit layer. Farther down, light becomes too weak to support most photosynthesis.

9. Surface water moves away from a coast and colder, nutrient-rich water rises to replace it. What process is this?

A. Upwelling
B. Evaporation
C. Downwelling
D. Sedimentation

Correct answer: A. Upwelling
Upwelling brings water from below toward the surface. This water often supplies nutrients that support marine food webs.

10. Estimate total pressure at 30 meters below the ocean surface if it is 1 atmosphere at the surface and rises by about 1 atmosphere every 10 meters.

A. 30 atmospheres
B. 3 atmospheres
C. 2 atmospheres
D. 4 atmospheres

Correct answer: D. 4 atmospheres
Thirty meters adds about 3 atmospheres of water pressure. Including the atmosphere already pressing on the surface gives about 4.

11. A map shows the relatively shallow submerged edge of a continent before the seafloor drops down a steeper slope. What is that shallow area?

A. Mid-ocean ridge
B. Continental slope
C. Continental shelf
D. Abyssal plain

Correct answer: C. Continental shelf
The continental shelf extends seaward from land to the steeper continental slope.

12. Some marine organisms generate light through a chemical reaction in their bodies. What is this ability called?

A. Fluorescence
B. Bioluminescence
C. Phosphorescence
D. Reflection

Correct answer: B. Bioluminescence
Bioluminescence is light produced by a biological chemical reaction. Some ocean animals use it for signaling or attracting prey.

13. Two oceanic plates move apart, and rising molten rock cools to form new crust. What seafloor feature commonly forms along this boundary?

A. An ocean trench
B. A continental shelf
C. A submarine canyon
D. A mid-ocean ridge

Correct answer: D. A mid-ocean ridge
A mid-ocean ridge marks a spreading boundary where new oceanic crust forms as plates separate.

14. At new moon and full moon, the Sun, Moon, and Earth are nearly aligned. How does that typically affect the local difference between high and low tide?

A. The difference becomes larger
B. The difference becomes smaller
C. The high and low tides reach the same height
D. The difference stays exactly the same

Correct answer: A. The difference becomes larger
The solar and lunar tidal effects reinforce each other near these alignments. That produces a larger tidal range called a spring tide.

15. At a dark hydrothermal vent, some microbes use chemical energy from reactions involving vent fluids to make organic matter. What is this process called?

A. Evaporation
B. Photosynthesis
C. Chemosynthesis
D. Mechanical digestion

Correct answer: C. Chemosynthesis
Chemosynthesis uses chemical energy to build organic matter. It supplies food at the base of many deep-sea vent communities.