

Essentials of Oceanography

Oceanography · Answer Key · 25 Questions

1. Which of the following covers approximately 71 percent of the Earth's surface?

- A) The continents
- B) The global ocean**
- C) The ice caps
- D) The desert regions

2. What is the deepest known point in the Earth's oceans?

- A) The Puerto Rico Trench
- B) The Java Trench
- C) The Challenger Deep**
- D) The Tonga Trench

3. Which ocean is the largest and deepest in the world?

- A) Atlantic Ocean
- B) Indian Ocean
- C) Arctic Ocean
- D) Pacific Ocean**

4. What primarily causes the movement of ocean tides?

- A) Wind patterns
- B) The gravitational pull of the Moon and Sun**
- C) Temperature differences
- D) Earth's rotation speed

5. What is the average salinity of the world's ocean?

- A) 3.5 percent**
- B) 10 percent
- C) 0.5 percent
- D) 15 percent

6. Which major current is responsible for warming the climate of Western Europe?

- A) California Current
- B) Gulf Stream**
- C) Peru Current
- D) Labrador Current

7. What is the name of the process by which cold, nutrient-rich water rises to the surface?

- A) Downwelling
- B) Subduction
- C) Upwelling**
- D) Evaporation

8. Which layer of the ocean receives enough sunlight for photosynthesis?

- A) Abyssal zone
- B) Hadal zone
- C) Euphotic zone**
- D) Bathyal zone

9. What is the most abundant dissolved salt in the ocean?

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

10. Which term describes the gradual increase in ocean acidity due to increased carbon dioxide levels?

- A) Ocean acidification**
- B) Thermal expansion
- C) Marine deoxygenation
- D) Eutrophication

11. The 'Great Barrier Reef' is primarily located off the coast of which country?

- A) Brazil
- B) Indonesia
- C) Australia**
- D) Philippines

12. What is the primary gas dissolved in the ocean that marine animals require to breathe?

- A) Carbon dioxide
- B) Nitrogen
- C) Oxygen**
- D) Methane

13. What is the name of the underwater mountain range that runs through the middle of the Atlantic Ocean?

A) Mid-Atlantic Ridge

B) Andes Range

C) Himalayan Trench

D) Aleutian Arc

14. Which ocean zone is characterized by complete darkness and extreme pressure?

A) Epipelagic

B) Mesopelagic

C) Abyssal

D) Neritic

15. What is the primary factor influencing the formation of surface ocean currents?

A) Tectonic plate movement

B) Global wind patterns

C) Underwater volcanoes

D) Salinity gradients

16. Approximately how much of the Earth's total water is contained in the oceans?

A) 97 percent

B) 50 percent

C) 75 percent

D) 30 percent

17. What is a tsunami typically caused by?

A) Tidal forces

B) Underwater earthquakes or volcanic eruptions

C) Strong surface winds

D) Heavy rainfall

18. Which ocean basin is bordered by the most continents?

A) Arctic Ocean

B) Pacific Ocean

C) Indian Ocean

D) Atlantic Ocean

19. What is the name of the boundary layer where ocean temperature changes rapidly with depth?

- A) Halocline
- B) Thermocline**
- C) Pycnocline
- D) Mixed layer

20. Which of these is considered a 'marginal sea' of the Atlantic Ocean?

- A) Coral Sea
- B) Caribbean Sea**
- C) Tasman Sea
- D) Bering Sea

21. What do we call the large, circular systems of surface ocean currents?

- A) Eddies
- B) Gyres**
- C) Tides
- D) Upwellings

22. Which substance makes up the majority of the sediment on the deep ocean floor?

- A) Volcanic ash
- B) Organic debris and clay**
- C) Crushed coral
- D) Plastic waste

23. The 'Ring of Fire,' known for frequent volcanic activity, is located primarily around which ocean?

- A) Atlantic Ocean
- B) Pacific Ocean**
- C) Arctic Ocean
- D) Indian Ocean

24. Which instrument is commonly used to measure the depth of the ocean floor?

- A) Barometer
- B) Sonar**
- C) Anemometer
- D) Hygrometer

25. What is the term for the total variety of life forms found in an ocean ecosystem?

A) Biomass

B) Biodiversity

C) Carrying capacity

D) Population density