

Oceanography: Marine Life and Ecosystems

Oceanography · Practice Test · 20 Questions

1. Which marine mammal is known to be the deepest diver, capable of reaching depths of over 2,000 meters?

- A) Sperm whale
- B) Bottlenose dolphin
- C) Blue whale
- D) California sea lion

2. What is the primary substance that makes up the skeletal structures of reef-building corals?

- A) Calcium carbonate
- B) Silica
- C) Magnesium sulfate
- D) Iron oxide

3. Which zone of the ocean is defined by the complete absence of sunlight?

- A) Aphotic zone
- B) Photic zone
- C) Intertidal zone
- D) Pelagic zone

4. What phenomenon causes the upwelling of nutrient-rich cold water along coastlines?

- A) Ekman transport
- B) Tidal resonance
- C) Coriolis effect
- D) Thermal expansion

5. Which type of phytoplankton is responsible for a large portion of the Earth's oxygen production through photosynthesis?

- A) Prochlorococcus
- B) Dinoflagellates
- C) Coccolithophores
- D) Brown algae

6. What is the largest marine protected area in the world by surface area?

- A) Papahānaumokuākea Marine National Monument
- B) Great Barrier Reef Marine Park
- C) Ross Sea Region Marine Protected Area
- D) Galápagos Marine Reserve

7. Which sea creature possesses three hearts and blue blood?

- A) Octopus
- B) Giant squid
- C) Cuttlefish
- D) Nautilus

8. What is the salinity of typical open ocean water?

- A) 35 parts per thousand
- B) 10 parts per thousand
- C) 50 parts per thousand
- D) 5 parts per thousand

9. Which ocean current is a major contributor to the relatively mild climate of Western Europe?

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

10. What type of fish is uniquely known for its ability to live in both freshwater and saltwater environments throughout its life cycle?

- A) Euryhaline fish
- B) Stenohaline fish
- C) Benthic fish
- D) Pelagic fish

11. What is the name of the process by which atmospheric carbon dioxide is sequestered in the deep ocean?

- A) Biological pump
- B) Carbon sink reversal
- C) Oceanic degassing
- D) Thermal stratification

12. Which gas, released during the decay of organic matter on the seafloor, is associated with methane clathrates?

- A) Methane
- B) Nitrogen
- C) Helium
- D) Neon

13. What is the largest species of shark currently inhabiting the Earth's oceans?

- A) Whale shark
- B) Great white shark
- C) Basking shark
- D) Hammerhead shark

14. Which organism is the primary producer at the base of the Antarctic marine food web?

- A) Antarctic krill
- B) Diatoms
- C) Copepods
- D) Icefish

15. What term describes the sharp change in density with depth in the ocean?

- A) Pycnocline
- B) Thermocline
- C) Halocline
- D) Bathycline

16. Which marine reptile spends its entire life cycle in the ocean and is known for traveling thousands of miles to nesting beaches?

- A) Leatherback sea turtle
- B) Saltwater crocodile
- C) Marine iguana
- D) Sea snake

17. What is the primary cause of ocean acidification?

- A) Absorption of atmospheric CO₂
- B) Volcanic activity
- C) Increased solar radiation
- D) Agricultural runoff

18. Which layer of the ocean contains the highest concentration of marine life?

- A) Epipelagic zone
- B) Mesopelagic zone
- C) Bathypelagic zone
- D) Abyssopelagic zone

19. What is the average depth of the world's oceans?

- A) 3,700 meters
- B) 1,200 meters
- C) 5,500 meters
- D) 2,000 meters

20. Which organism exhibits bioluminescence to attract prey in the bathypelagic zone?

- A) Anglerfish
- B) Sea star
- C) Sea urchin
- D) Giant clam