

Chapter 02

The Sea Floor

Multiple Choice Questions

1. How much of the Earth's surface is covered by the world ocean?

- A. 53%
- B. 65%
- C. 71%**
- D. 78%
- E. 80%

2. The largest percentage of the world ocean is found in the:

- A. Northern hemisphere.
- B. Southern hemisphere.**
- C. Eastern hemisphere.
- D. Western hemisphere.
- E. The ocean is evenly distributed.

3. One of the following is **not** one of the world's major ocean basins:

- A. Atlantic Ocean.
- B. Arctic Ocean.
- C. Indian Ocean.
- D. Antarctic Ocean.**
- E. Pacific Ocean.

4. The world's smallest and shallowest ocean is:

- A. Atlantic Ocean.
- B. Arctic Ocean.**
- C. Indian Ocean.
- D. Antarctic Ocean.
- E. Pacific Ocean.

5. The world's largest and deepest ocean is:

- A. Atlantic Ocean.
- B. Arctic Ocean.
- C. Indian Ocean.
- D. Antarctic Ocean.
- E. Pacific Ocean.

6. Oceanographers often use the name "Southern Ocean" to refer to the body of water:

- A. Around Antarctica
- B. In the South Pacific
- C. South of the North Sea
- D. South of Florida
- E. Around the southern tip of India

7. The **Big Bang** was:

- A. The origin of the Earth's magnetic field
- B. The beginning of plate tectonics and continental drift
- C. The origin of the oceans as water condensed on Earth
- D. The giant cosmic explosion that occurred 13.7 billion years ago and created the Universe.

8. Density is:

- A. The mass of a substance per unit volume
- B. A measure of weight
- C. The mass of a substance multiplied by its percentage volume of water
- D. A measure of volume
- E. The volume occupied by a particular substance in relation to that of water

9. There is evidence that the earth and the rest of the solar system formed about:

- A. 5 million years ago
- B. 1 billion years ago
- C. 4.5 billion years ago
- D. 10.5 billion years ago
- E. 10 million years ago

10. The semi-solid layer of the earth found below the crust and outside of the core is called the:

- A. Inner core
- B.** Mantle
- C. Inner crust
- D. Outer core
- E. Oceanic crust

11. The earth's magnetic field is thought to be caused by movements of liquid metal in which of the earth's layers?

- A. Inner core.
- B.** Outer core.
- C. Oceanic crust.
- D. Mantle.
- E. Continental crust.

12. The thinnest layer of the earth is the:

- A. Inner core.
- B. Outer core.
- C.** Crust.
- D. Mantle.

13. Which of the following is **not true** of oceanic crust?

- A. It is thinner than continental crust
- B. It is denser than continental crust
- C. It is geologically younger in most places than continental crust
- D. It lies below sea level
- E.** It consists mostly of granite

14. Which of the following is **not true** of mid-ocean ridges?
- A. Earthquakes and volcanoes are associated with them
 - B.** The sediment covering gets thinner as one moves away from them towards the continents
 - C. The rock on the sea floor is older as one moves away from them
 - D. Sea floor spreading is associated with them
 - E. All are interconnected
15. Which of the following is **true** about lithospheric plates?
- A. Only contain continental crust
 - B. Only contain oceanic crust
 - C. Collide with one another at the mid-ocean ridge
 - D.** Float on the upper mantle
 - E. Are directly connected with the inner core of the earth
16. Which of the following statements is **NOT** true?
- A. Oceanic crust is made of a rock-type called basalt
 - B. Oceanic crust is denser than continental crust
 - C. Oceanic crust is thinner than continental crust
 - D.** Oceanic crust is older than continental crust
 - E. There are significant chemical differences between oceanic and continental crust
17. Trenches are formed in areas where:
- A. A plate is lifted by another
 - B. A plate moves along side another in a transform motion
 - C. A plate splits and opens up
 - D. Sea floor spreading takes place
 - E.** A plate sinks beneath another
18. The **process** by which a lithospheric plate descends into the mantle is called:
- A. Continental drift
 - B. Induction
 - C. Sea floor spreading
 - D.** Subduction
 - E. Faulting

19. The friction zone along the shear boundary such as the one in California between two lithospheric plates is called a:

- A. Fault
- B. Rift
- C. Trench
- D. Mid-ocean ridge
- E. Sea

20. Which of these places is an example of an island arch along a trench:

- A. Aleutian Islands
- B. Hawaiian Islands
- C. Australia
- D. Galápagos Islands
- E. Bermuda

21. Which in **not** a type of lithospheric plate boundary?

- A. Shear boundary
- B. Continental shelf
- C. Trench
- D. Mid-ocean ridge

22. The type of plate boundary where plates move past each other in a sort of lateral motion is called:

- A. Island arc
- B. Subduction zone
- C. Trench
- D. Convection zone
- E. Shear boundary

23. Evidence of plate techtonics is provided by:

- A. Magnetic anomalies/paleomagnetic evidence
- B. Sea floor spreading
- C. The existence of mid ocean ridges
- D.** All of the above
- E. B and C only

24. (p. 31) The name of the vast single world ocean that was present about 200 million years ago is:

- A. Sinus Borealis
- B. Pangaea
- C. Tethys
- D.** Panthalassa
- E. Gondwana

25. Lithogenous sediments are those that come from:

- A. Plants
- B. Living organisms in general
- C. Deep-water volcanoes
- D.** Erosion of land
- E. Corals

26. The outer edge of the continental margin is the:

- A.** Shelf break
- B. Continental slope
- C. Continental rise
- D. Edge of the abyssal plain
- E. Continental edge

27. The **steepest** part of the continental margin where it descends down to the ocean floor is known as the:

- A. Shelf break
- B. Continental slope**
- C. Continental rise
- D. Edge of the abyssal plain
- E. Continental edge

28. The shallow part of the continental margin that is closer to land and is a critical marine habitat because light can reach all the way to the bottom in most of it is known as:

- A. Shelf break
- B. Continental slope
- C. Continental rise
- D. Edge of the abyssal plain
- E. Continental shelf**

29. The west coast of South America is an active continental margin. As such, it is characterized by all of the following **except**:

- A. Earthquakes
- B. Volcanoes
- C. Wide continental shelf**
- D. Steep and rocky shorelines
- E. Steep continental slope

30. The east coast of the United States is a passive continental margin which is characterized by:

- A. Mountains along the coast
- B. Steep and rocky shorelines
- C. Narrow continental shelf
- D. Offshore trench
- E. Gentle continental slope**

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31. Black smoker stacks or columns form as a result of the accumulation of:
- A. Deep-water animals
 - B. Lava
 - C. Biogenous sediments
 - D.** Metallic-sulfide minerals reacting with seawater
 - E. Material released from the formation of trenches
32. Sea levels have naturally fluctuated through the vast epochs of geologic time. What is occurring now with regards to sea level?
- A. Sea level is absolutely falling
 - B. Sea level is absolutely rising
 - C. Sea level always remains stable
 - D.** Scientists are not sure
 - E. Sea level varies by location
33. The most biologically rich part of the ocean is the:
- A. Shelf break
 - B.** Continental shelf
 - C. Continental slope
 - D. Continental rise
 - E. Deep-sea floor