



Name: _____ Date: _____

Unit F Quiz

Part A: Modified True/False

Indicate in the left-hand column whether each statement is true or false. If the statement is false, change the statement to make it true.

- ____ 1. Mantle convection occurs in the asthenosphere.

- ____ 2. The currently accepted theory explaining the presence of Earth's surface features as well as geological events is known as continental drift theory.

- ____ 3. Rift valleys form at continental-continental convergent boundaries.

- ____ 4. S-waves travel along the outside of Earth, causing the most damage to human structures of all seismic waves.

Part B: Completion

Complete the following sentences.

5. The regions of Earth that make up the lithosphere are _____
_____.
6. Oceanic crust is recycled at _____.
7. Seafloor spreading occurs at an oceanic-oceanic _____ boundary.
8. An earthquake with a focus in Earth's crust is categorized as a _____ earthquake.

Part C: Matching

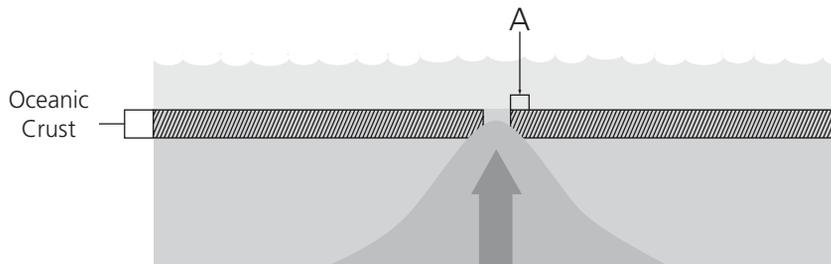
Match each layer of Earth with its description.

- | | |
|---------------------|----------------------------|
| ____ 9. crust | (a) can block S-waves |
| ____ 10. inner core | (b) thinnest layer |
| ____ 11. mantle | (c) the source of magma |
| ____ 12. outer core | (d) very dense solid metal |

Unit F Quiz (continued)**Part D: Multiple Choice**

Circle the letter beside the answer that best completes the statement or answers the question.

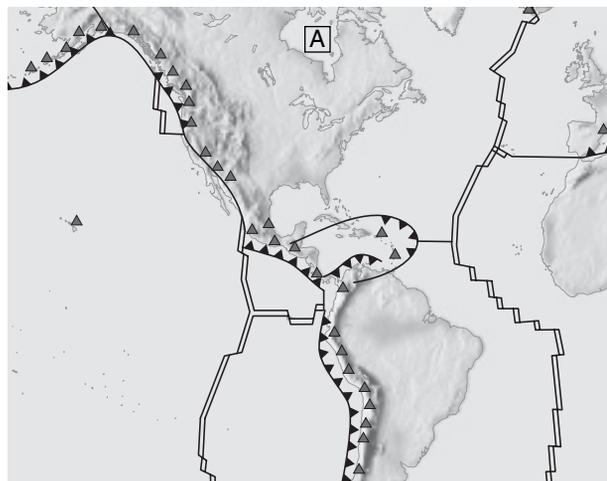
13. Which statement best describes the relationship between the lithosphere and Earth's crust?
- A. The crust sits above the lithosphere.
 - B. The common name for the lithosphere is "crust."
 - C. The lithosphere is made up of the crust and upper mantle.
 - D. The crust is made up of the asthenosphere and the lithosphere.
14. When a continental and an oceanic plate converge, the oceanic plate will subduct beneath the continental plate. What is the best explanation for this phenomenon?
- A. Oceanic crust is older than continental crust.
 - B. Oceanic crust is denser than continental crust.
 - C. Continental crust is thinner than oceanic crust.
 - D. Continental crust is rougher than oceanic crust.
15. What is the relationship between magma and lava?
- A. Magma melts to form lava.
 - B. Lava melts surface rock, creating magma.
 - C. Lava is magma that has reached Earth's surface.
 - D. Magma at Earth's surface solidifies to form lava.
16. Examine the figure below. Which statement best describes region A?



- A. It represents the densest oceanic crust.
 - B. It represents the youngest oceanic crust.
 - C. It is a likely location for deep focus earthquakes.
 - D. It sits on the leading plate edge at a subduction zone.
17. What information did Wegener lack that made continental drift theory incomplete?
- A. the mechanism for tectonic plate movement
 - B. the compositions of continental and oceanic crust
 - C. the presence of identical fossils on different continents
 - D. the understanding that Earth was more than 7000 years old

Unit F Quiz (continued)

18. Which feature is least likely to form at or relatively near an oceanic-continental convergent boundary?
- A. a volcanic belt
B. a mid-ocean ridge
C. a deep ocean trench
D. a volcanic island arc
19. The Alps form a large non-volcanic mountain range that crosses several European countries. What kind of plate boundary do the Alps most likely represent?
- A. transform
B. continental divergent
C. continental convergent
D. oceanic-continental convergent
20. Which statement best explains why magma is likely to form in a subduction zone?
- A. Temperatures are higher due to the presence of hot spots.
B. Pressure on the lithosphere of the overriding plate decreases.
C. The subducting plate experiences increasing pressure with depth.
D. Water changes the composition of mantle material as one plate subducts.
21. At which kind of plate boundary would you be least likely to find volcanoes?
- A. oceanic-oceanic divergent
B. oceanic-oceanic convergent
C. oceanic-continental convergent
D. continental-continental convergent
22. In which Earth layer do deep-focus earthquakes originate?
- A. crust
B. mantle
C. inner core
D. outer core
23. In which direction is plate A moving?



- A. west
B. south
C. northeast
D. northwest

Unit F Quiz (continued)

24. What is the main cause of the “push” in ridge push?
- A. melting and recycling of rock in the mantle
 - B. solidification and sinking of new lithosphere
 - C. density differences in underlying mantle material
 - D. friction between the lithosphere and asthenosphere
25. Which scenario best describes what happens at a transform boundary?
- A. Two plates move apart as new lithosphere forms.
 - B. A denser plate subducts beneath a less dense plate.
 - C. Two plates move past each other in opposite directions.
 - D. The leading edge of an old plate is pulled back into the mantle.

Part E: Short Answer

26. Explain why continental drift is not the current theory explaining the dynamic nature of Earth’s surface.

27. Describe how scientists have used seismic waves to learn about the structure of Earth’s core.

28. Marine fossils have been found in mountains. Describe the mechanism that can cause this to occur.
