Quiz #6 - Earthquakes

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. An area where no direct seismic waves from a particular earthquake can be detected is called
a. an inactive fault zone.
b. the mesosphere.
c. a shadow zone.
d. the atmosphere.

____ 2. What are the fastest body waves?
a. P waves
b. T waves
c. S waves
d. Q waves

____ 3. Rayleigh waves cause the ground to move
a. in a horizontal direction.
b. in a back-and-forth direction.
c. in a jerky, up-and-down motion.
d. in an elliptical, rolling motion.

____ 4. Earthquakes generally occur at plate boundaries, where
a. stress on rocks is greatest.
b. the most rock is found.
c. stress on rocks is low.
d. magnetic pull is greatest.

____ 5. If you are in a car during an earthquake, you should
a. drive toward a bridge.
b. stop the car in a safe place.
c. get out and run.
d. park near a tall building.

____ 6. What are food, water, flashlights, and a portable radio needed for?
a. measuring surface waves
b. preparing for earthquakes
c. finding shadow zones
d. predicting earthquakes

____ 7. What happens to tsunamis as they move toward shore?
a. The decrease in height.
b. They die out.
c. They turn into riptides.
d. They increase in height.

____ 8. During a major earthquake, buildings
a. always remain standing.
b. do not move.
c. may sway or collapse.
d. are never damaged.

____ 9. Which of the following is true of earthquake prediction?
a. It is unreliable.
b. It is impossible.
c. Scientists do not attempt it.
d. It is not important.

____ 10. Which of the following is NOT a cause of tsunamis?
a. volcanic eruption
b. tornado
c. undersea landslide
d. undersea earthquake

____ 11. If you are indoors during an earthquake, you should
a. stand near a window.
b. stand on top of a desk.
c. crouch under a desk.
d. get outdoors fast.

____ 12. At what location does the first motion of an earthquake occur?
a. the focus
b. the seismic gap
c. the mantle
d. the epicenter

____ 13. P waves are also known as
a. secondary waves.
b. compression waves.
c. Love waves.
d. Rayleigh waves.

____ 14. How do scientists find the epicenter of an earthquake?
a. by comparing arrival times of P waves and S waves at several seismograph stations
b. by digging at several locations and comparing data
c. by comparing departure times of P waves and S waves at several seismograph stations
d. by reviewing satellite photos of tsunamis

____ 15. Which of the following are studied to forecast earthquakes?
a. movements of the planets, bird migration, air temperature
b. barometric pressure, ocean currents, glacial patterns
c. animal behavior, environmental changes, weather patterns
d. seismic gaps, foreshocks, rock changes

____ 16. What is the epicenter of an earthquake?
a. the location along a fault where the first motion of an earthquake occurs
b. a seismic wave that travels along the surface of Earth
c. the point on Earth's surface directly above the earthquake's focus
d. the last place that motion in an earthquake is detected

____ 17. Through what type of materials do P waves travel fastest?
a. very rigid, brittle materials
b. hot lava
c. liquids and gases
d. very rigid, not easily compressed materials

____ 18. Which of the following do scientists study in their efforts to forecast earthquakes?
a. seismic gaps, rock changes, foreshocks
b. bird migration, animal behavior patterns, human behavior patterns
c. the solar system, air testing, rock samples
d. barometric pressure, rock alignment, prevailing winds

____ 19. Fault zones form at plate boundaries because
   a. seismic gaps and shadow zones form there.
   b. very little rock stress and strain occur there.
   c. intense stress occurs there when the plates separate, collide, subduct, or slide past each other.
   d. they have a long geologic history of occurring in the same places.

____ 20. Where does the first motion of an earthquake occur?
   a. fault
   b. focus
   c. epicenter
   d. locus

Free Responce Questions: Answer any 2 of the following. Make sure your answer is complete. Use correct vocabulary. Short Paragraph answers required.

21. What is an earthquake?

22. What is the difference between the focus and the epicenter of an earthquake?

23. What is another name for a compression wave or a primary wave?

24. What do the three sensing devices of a modern seismograph measure?