

1. From choices below, the best estimate of the age of the Universe is _____. old.
 - A. five million
 - B. five billion
 - C. fifteen billion
 - D. one hundred billion
2. Heat transfer that occurs through the movement of a fluid, driven by temperature differences among various points within the fluid, is termed _____.
 - A. radiation
 - B. conduction
 - C. convection
 - D. adhesion
3. Most continental topography lies within a range of altitude between _____.
 - A. sea level and 1 km below sea level
 - B. sea level and 1 km above sea level
 - C. 2-5 km above sea level
 - D. 3-6 km above sea level
4. When molten material freezes so quickly that the atoms do not have sufficient time to produce an orderly arrangement, the resulting material is termed a _____.
 - A. mineral
 - B. volatile
 - C. natural glass
 - D. metamelt
5. Abundant swamps led to the formation of coal in which of the following places?
 - A. India
 - B. southern Africa
 - C. North America
 - D. South America
6. Sea-floor spreading is driven by volcanic activity _____.
 - A. in the middle of abyssal plains
 - B. along mid-ocean ridges
 - C. at the edges of continental shelves
 - D. along fracture zones
7. The idea that the continents have maintained fixed positions throughout time _____.
 - A. was accepted by scientists until the late 1960s
 - B. was replaced by the theory of plate tectonics
 - C. was incorporated within the theory of plate tectonics
 - D. A and B are both correct; C is incorrect
8. On average, continental lithosphere _____.
 - A. is thicker than oceanic lithosphere
 - B. contains more mafic rocks than does oceanic lithosphere
 - C. is more dense than oceanic lithosphere
 - D. contains no crustal material, consisting solely of lithified upper mantle
9. Within the terminology of plate tectonics, an active margin is _____.
 - A. synonymous with "subduction zone"
 - B. a 5 mile radius surrounding an active volcano
 - C. a continental coastline that coincides with a plate boundary
 - D. anywhere on Earth where earthquakes are especially frequent
10. Tectonic plates move at rates that are approximately _____.
 - A. 1-5 cm every 1,000 years
 - B. 1-15 cm / year
 - C. 1-15 m / year
 - D. 10-100 m / year

23. Mud, sand, and lithic clasts comprise sedimentary rock termed _____.
 A. metasandstone B. lithosandstone C. graywacke D. arkose
24. A buried body of aragonitic limestone is recrystallized at low temperatures and pressures, producing calcite; this is an example of _____.
 A. diagenesis B. erosion C. metamorphism D. weathering
25. Squashing a fly with a fly swatter is an application of _____.
 A. normal stress B. shear stress
26. Slaty cleavage, schistosity, and compositional banding are all examples of _____.
 A. mineral cleavage B. foliation
 C. recrystallization D. sedimentary structures
27. Alteration due uniquely to the shear encountered at a fault zone is termed _____ metamorphism.
 A. foliated B. prograde C. retrograde D. dynamic
28. In 79 C. E., the citizens of Pompeii in the ancient Roman Empire were buried by pyroclastic debris derived from an eruption of _____.
 A. Mt. Olympus B. Olympus Mons
 C. Mt. Vesuvius D. Mt. St. Helens
29. Basaltic lavas which solidify at the surface before flow ceases fracture irregularly, producing a sharp-surfaced lava rock named _____.
 A. pahoehoe B. aa C. pumice D. hyaloclasite
30. Pillow lavas are associated with _____.
 A. continental rhyolitic eruptions B. continental basaltic eruptions
 C. submarine rhyolitic eruptions D. submarine basaltic eruptions
31. The lithification of material from a pyroclastic flow forms a rock called _____.
 A. metabasalt B. ignimbrite
 C. migmatite D. tuff
32. Of the three primary forms of subaerial volcanoes, _____ consist of a simple, conical pile of tephra.
 A. stratovolcanoes B. cinder cones C. shield volcanoes
33. In an undisturbed sequence of sedimentary rocks, younger layers overlie older layers, according to the principle of _____.
 A. superposition B. original continuity
 C. original horizontality D. uniformitarianism
34. Dinosaurs first appeared during the _____ period.
 A. Cambrian B. Devonian C. Permian D. Triassic