G8 Science Homework (Chapter 10)

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

____ 1. A _____ is a scientist who studies the classification and origin of all types of rocks.

a. mineralogist
b. pedologist
c. petrologist
d. sedimentologist

____ 2. _____ rocks are formed from bits and pieces of eroded rocks and from dissolved chemicals that precipitated.

a. Igneous
b. Sedimentary
c. Metamorphic
d. Petrolithic

____ 3. The individual rock particles, crystals, and sometimes fossils that combine to give a rock its texture are known as _____.

a. grains
b. nuggets
c. sediments
d. source rocks

____ 4. The grain size of glassy rocks like obsidian is _____.

a. very large
b. medium sized
c. very small
d. nonexistent

____ 5. According to young-earth geologists, the original igneous rocks _____.

a. formed around 4 billion years ago
b. were all created on Day 1 of Creation week
c. have been replaced by more recent intrusive and extrusive volcanism
d. were probably granite

____ 6. Many young-earth geologists think that the basement rocks created on the third day of Creation were probably _____.

a. igneous rocks
b. metamorphic rocks
c. sedimentary rocks
d. both igneous and metamorphic rocks

____ 7. Which of these contains the largest crystals, usually interlocking?

a. pegmatite

b. phanerite
c. porphyry
d. pumice

____ 8. _____ is a type of rock that is often light enough to float in water.

a. Flint
b. Marble
c. Pumice
d. Sandstone

____ 9. _____ is a type of rock that is so smooth and shiny that it is called *volcanic glass*.

a. Andesite
b. Basalt
c. Obsidian
d. Schist

____ 10. The term _____ describes rocks that have crystals so small that you can't see them with your eyes, and sometimes not even with a microscope.

a. aphanitic
b. phaneritic
c. porphyritic
d. pegmatitic

____ 11. Sediments that could turn into sedimentary rocks someday are accumulating _____.

a. very rapidly
b. as fast as they appear to have in the past
c. relatively slowly
d. not at all today

____ 12. Which type of rock is most closely tied to the process of erosion?

a. igneous
b. metamorphic
c. sedimentary
d. none of these

____ 13. Which of these steps would come between deposition and cementation in the formation of a sedimentary rock?

a. compaction
b. erosion
c. precipitation
d. pumice

____ 14. Which of the following does *not* belong with the other three?

a. clay
b. magma
c. pebbles
d. sand

____ 15. Rocks formed strictly from minerals precipitated from water are _____.

a. clastic sedimentary rocks
b. hydrolithic rocks
c. nonclastic sedimentary rocks
d. precipital rocks

____ 16. The settling out of materials from a solution to form inorganic nonclastic rocks is called _____.

a. compaction
b. precipitation
c. cementation
d. deposition

____ 17. Each of the following are types of nonclastic sedimentary rock *except* _____.

a. halite
b. shale
c. chalk
d. limestone

____ 18. Fossils are usually found in _____ rock.

a. hydrolithic
b. igneous
c. metamorphic
d. sedimentary

____ 19. A sedimentologist would most likely be employed to _____.

a. identify the composition of minerals
b. study the effects of earthquakes on igneous bedrock
c. certify that a site is geologically sound enough to support a tall building
d. study the erosion of farmland

____ 20. Which kind of sedimentary rock is most useful as a construction material?

a. limestone
b. chalk
c. rock salt (halite)
d. mudstone

____ 21. Which kind of rock used for building materials suffers the most damage from acid rain?

a. granite
b. basalt
c. limestone
d. quartzite

____ 22. When hydrothermal fluids cause changes to occur in rocks that they are in contact with, _____ metamorphism has occurred.

a. chemical

b. hydrolithic
c. nonclastic
d. regional

____ 23. Rock containing grains that appear to be aligned in more or less parallel patterns has probably experienced _____ metamorphism.

a. regional
b. contact
c. dynamic
d. chemical

____ 24. Which of these shows a possible correctly ordered sequence of rocks changing from one type to another?

a. shale to schist to slate
b. slate to schist to shale
c. shale to slate to schist
d. schist to slate to shale

____ 25. Which of the following is a common example of a nonfoliated metamorphic rock?

a. marble
b. slate
c. shale
d. schist

____ 26. High quality marble rock would most likely be used for _____.

a. railroad track bedding
b. veneer stone on large government buildings
c. raw materials for integrated circuits (computer chips)
d. home foundations

____ 27. According to the rock cycle model, which of the following was the starting material in the cycle?

a. igneous rock
b. molten magma
c. sediment
d. sedimentary rock

____ 28. In the old-earth version of the rock cycle, most rocks will eventually _____.

a. become metamorphic
b. be converted to energy
c. return to the mantle and melt
d. undergo chemical precipitation

____ 29. The young-earth view of historical geology concludes that _____.

a. only a tiny fraction of the secular rock cycle could have occurred since the beginning of the world
b. the world was not designed to recycle rocks
c. subduction of sedimentary rocks likely resulted from a brief but catastrophic period

in the earth's history
d. all of the above are consistent with a young-earth view of geologic history.

____ 30. The re-melting of sedimentary rocks in the crust can only be caused by _____.

a. subduction
b. extrusion
c. compaction
d. intrusion

True/False
Indicate whether the statement is true or false.

____ 31. The law of conservation of matter implies that the earth's matter can change in form but not in mass.

____ 32. Most rocks are a mixture of two or more minerals.

____ 33. Animals seek places under rocks for shelter, temperature control, and food.

____ 34. Long, thin grains in a rock indicate that something abnormal happened to it during its existence.

____ 35. Fossils are commonly found in granite.

____ 36. An igneous rock with large, interlocking mineral grains is classified as a pegmatite.

____ 37. Rhyolites and granites are chemically similar rocks.

____ 38. Igneous rocks do *not* make the best building materials because they tend to dissolve in acid rain.

____ 39. Old-earth geologists believe that it took millions of years for layers of sedimentary rocks to form.

____ 40. Cementation is what turns clastic sediments into sedimentary rock.

____ 41. Shale is a sedimentary rock formed by the deposition of sediments with very large clast sizes.

____ 42. Some limestones are considered to be inorganic nonclastic sedimentary rocks while others are organic nonclastic or clastic sedimentary rocks.

____ 43. Chalk is an organic sedimentary rock; that is, it formed from the remains of living organisms.

____ 44. Cement and concrete are composed mainly of igneous rocks.

____ 45. Some metamorphic rocks can be changed into other metamorphic rocks through metamorphism.

____ 46. If a geologist observes contact metamorphism in the rock below a horizontal stratum of igneous rock but not in the rock right above it, he can assume that he is looking at a surface lava flow rather than a sill intrusion.

____ 47. A rock sample that has shiny, flaky outer layers or wavy bands of color through its interior is likely a foliated metamorphic rock.

____ 48. Fossils are *never* preserved in metamorphic rocks because heat and pressure destroy them.

____ 49. The traditional rock cycle fits better with an old-earth worldview than a young-earth view.

____ 50. Sedimentary rocks are the starting material for most versions of the rock cycle.