

MY SO PRACTICE TEST

DIVISION C - HIGH SCHOOL, GRADES 9-12

PRACTICE TEST

Instructions

- You have 50 minutes to complete this test.
- You may write your answers directly in the test.
- You may use any notes or resources you have created or collected.
- You may use a calculator and scratch paper if necessary.
- Good Luck!

Test Questions

1. Obsidian is a
 - a. Extrusive, felsic igneous rock
 - b. Extrusive, mafic igneous rock
 - c. Intrusive, felsic igneous rock
 - d. Intrusive, mafic igneous rock
2. The basaltic bedrock of the oceanic crust is classified as:
 - a. felsic, with a density of 2.7 g/cm³
 - b. felsic, with a density of 3.0 g/cm³
 - c. mafic, with a density of 2.7 g/cm³
 - d. mafic, with a density of 3.0 g/cm³
3. Which property is most useful in distinguishing pyroxene from amphibole?
 - a. angles of cleavage
 - b. hardness
 - c. sample size
 - d. type of luster
4. Dolostone is classified as which type of rock?
 - a. chemically formed sedimentary rock
 - b. foliated metamorphic rock
 - c. land-derived sedimentary rock
 - d. nonfoliated metamorphic rock

5. What rock is sedimentary in origin and formed as a result of chemical processes?
- breccia
 - dolostone
 - granite
 - shale
6. Which igneous rock has a vesicular texture and contains the minerals potassium feldspar and quartz?
- andesite
 - pegmatite
 - pumice
 - scoria
7. Which two minerals have cleavage planes at right angles?
- biotite mica and muscovite mica
 - halite and pyroxene
 - quartz and calcite
 - sulfur and amphibole
8. Which processes most likely formed the shale bedrock found near Ithaca, NY?
- burial and compaction
 - heat and compaction
 - melting and recrystallization
 - uplift and solidification
9. Wavy bands of light and dark minerals visible in gneiss bedrock probably formed from the?
- cementing together of individual mineral grains
 - cooling and crystallization of magma
 - evaporation of an ancient ocean
 - heat and pressure during metamorphism
10. A student obtains a cup of quartz and sand from a beach. A saltwater solution is poured into the sand and allowed to evaporate. The mineral residue from the saltwater solution cements the sand grains together, forming a material that is most similar in origin to
- a clastic sedimentary rock
 - an extrusive igneous rock
 - a foliated metamorphic rock
 - an intrusive igneous rock
11. The three statements below are observations of the same rock sample:
- The rock has intergrown crystals from 2 to 3 millimeters in diameter
 - The minerals in the rock are gray feldspar, green olivine, green pyroxene, and black amphibole.
 - There are no visible gas pockets in the rock.
- This rock sample is most likely.
- gabbro
 - granite
 - phyllite
 - sandstone

12. Most rock gypsum is formed by the
- chemical precipitation of minerals from seawater
 - compaction and solidification of lava
 - cooling and solidification of lava
 - heating of previously existing foliated bedrock
13. Which home-building material is made mostly from the mineral gypsum?
- drywall panels
 - iron nails
 - plastic pipes
 - window glass
14. How are the minerals biotite mica and muscovite mica different?
- Biotite mica is colorless, but muscovite mica is not
 - Biotite mica contains iron and/or magnesium, but muscovite mica does not.
 - Muscovite mica cleaves into thin sheets, but biotite mica does not.
 - Muscovite mica scratches quartz, but biotite mica does not.
15. Which intrusive igneous rock could be composed of approximately 60% pyroxene, 25% plagioclase feldspar, 10% olivine, and 5% amphibole?
- basalt
 - gabbro
 - granite
 - rhyolite
16. Which igneous rock, when weathered, could produce sediment composed of the minerals potassium feldspar, quartz, and amphibole?
- andesite
 - basalt
 - gabbro
 - granite
17. Which process could lead directly to the formation of pumice rock?
- deposition of quartz sand
 - explosive eruption of lava from a volcano
 - metamorphism of unmelted rock material
 - precipitation of minerals from evaporating seawater
18. A human fingernail has a hardness of approximately 2.5. Which two minerals are softer than a human fingernail?
- calcite and halite
 - graphite and talc
 - pyrite and magnetite
 - sulfur and fluorite
19. Which physical characteristic best describes the rock phyllite?
- bioclastic texture with cemented shell fragments
 - clastic texture with angular fragments
 - foliated texture with microscopic mica crystals
 - glassy texture with gas pockets

20. The large coal fields found in Pennsylvania provide evidence that the climate of the northeastern United States was much warmer during the Carboniferous Period. This change in climate over time is best explained by the
- changes in the environment caused by humans
 - effects of seasons
 - evolution of life
 - movements of tectonic plates
21. Rocks are classified as igneous, sedimentary, or metamorphic based primarily on their
- crystal or grain size
 - method of formation
 - mineral composition
 - texture
22. The internal atomic structure of a mineral most likely determines the mineral's
- color, streak, and age
 - hardness, cleavage, and crystal shape
 - origin, exposure, and fracture
 - size, location, and luster
23. When granite melts and then solidifies, it becomes
- igneous rock
 - metamorphic rock
 - sedimentary rock
 - sediments
24. Which phrase best describes coal?
- chemical precipitate
 - glassy texture, volcanic
 - low density, mafic
 - organic plant remains
25. What is the best way to determine if a mineral sample is calcite or quartz?
- Measure the mass of the mineral.
 - Observe the color of the mineral.
 - Place a drop of acid on the mineral.
 - Place the mineral near a magnet.

ANSWER KEY

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|-----|----------|-----|----------|
| 1. | B | 15. | B |
| 2. | D | 16. | D |
| 3. | D | 17. | B |
| 4. | A | 18. | B |
| 5. | B | 19. | C |
| 6. | C | 20. | D |
| 7. | B | 21. | B |
| 8. | A | 22. | B |
| 9. | D | 23. | A |
| 10. | A | 24. | D |
| 11. | A | 25. | C |
| 12. | A | | |
| 13. | A | | |
| 14. | B | | |