

1g. Review

1. Which rock is of felsic composition, low in density, light in color, and coarse grained?

- (1) rhyolite (3) granite
(2) basalt (4) gabbro

2. Gabbro is composed mainly of

- (1) plagioclase feldspars and pyroxene
(2) hornblende and quartz
(3) biotite and olivine
(4) potassium feldspar and quartz

3. Most igneous rocks form by which processes?

- (1) melting and solidification
(2) heat and pressure
(3) erosion and deposition
(4) compaction and cementation

4. Which is a fine-grained igneous rock made up primarily of pyroxene and plagioclase feldspar?

- (1) gabbro (3) granite
(2) basalt (4) rhyolite

5. Which statement best describes the percentage of plagioclase feldspars in a sample of gabbro?

- (1) The percentage of plagioclase feldspars in gabbro can vary.
(2) Gabbro always contains less plagioclase than pyroxene.
(3) Plagioclase feldspars always make up 25% of a gabbro sample.
(4) Gabbro contains no plagioclase feldspars.

6. Which two mineral grains would most likely be found in soil formed from granite?

- (1) olivine and pyroxene
(2) potassium feldspar and quartz
(3) plagioclase and pyroxene
(4) olivine and nepheline

7. Compared to basalt, granite is

- (1) lighter in color
(2) greater in density
(3) more mafic in composition
(4) more fine grained in texture

8. Which property would be most useful for identifying igneous rocks?

- (1) kind of cement (3) number of minerals present
(2) mineral composition (4) types of fossils present

9. Rhyolite and granite are alike in that they both are

- (1) fine-grained (3) mafic
(2) dark-colored (4) felsic

10. A fossil is not likely to be found in

- (1) limestone (3) basalt
(2) sandstone (4) shale

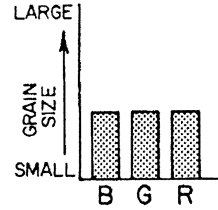
11. A coarse-grained rock contains 50% plagioclase, 45% pyroxene, and 5% hornblende. This rock should be identified as

- (1) basalt (3) rhyolite
(2) granite (4) gabbro

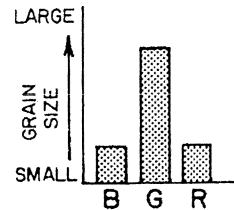
12. Which graph best represents the comparison of the average grain sizes in basalt, granite, and rhyolite?

Key to Graph Abbreviations

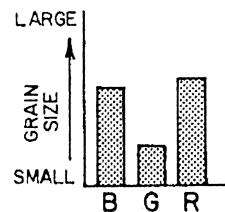
- B - Basalt
G - Granite
R - Rhyolite



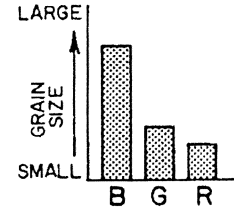
(1)



(3)



(2)



(4)

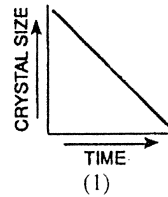
13. Large crystals in an igneous rock most likely form as a result of the

- (1) mineral composition of the magma
(2) cooling rate of the magma
(3) fossil content of the rock
(4) color of the rock

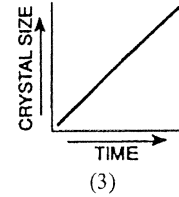
14. Which substances could be found in the same igneous rock?

- (1) pebbles and cobbles
(2) sandstone and limestone
(3) plagioclase feldspar and pyroxene
(4) quartz and olivine

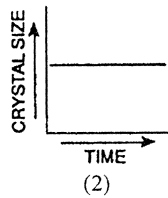
15. Which graph best represents the relationship between the length of time molten magma takes to cool and the size of the crystals in the rock formed by the magma?



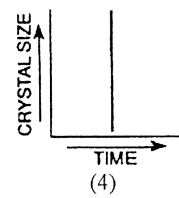
(1)



(3)



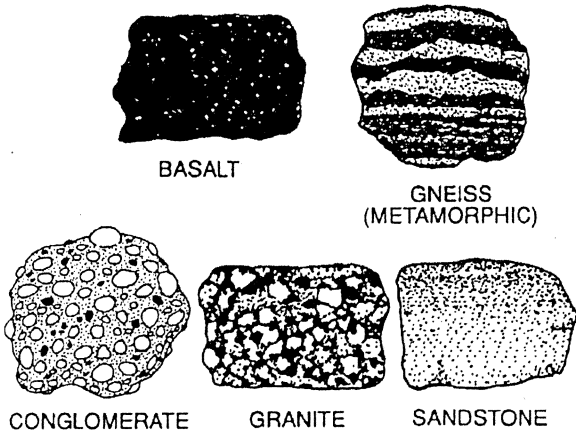
(2)



(4)

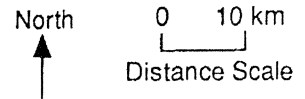
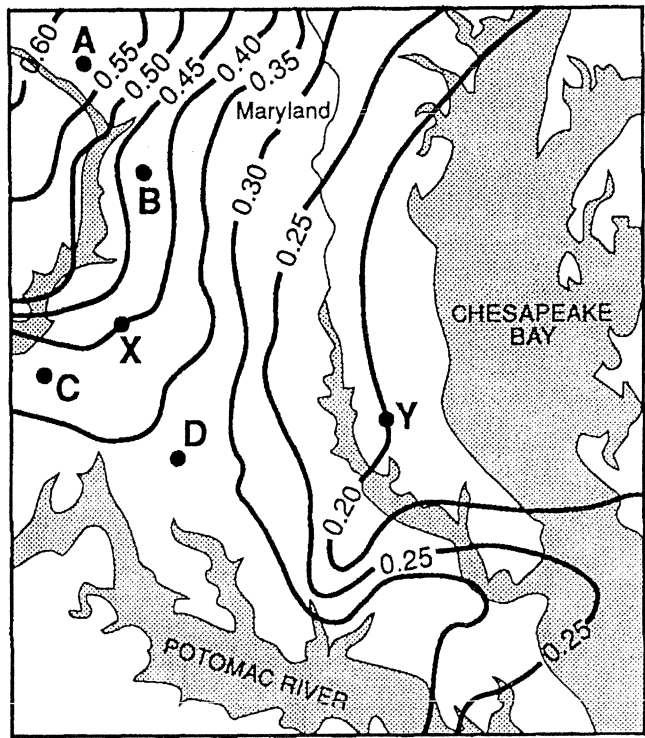
16. Rhyolite is an example of a
- (1) monomineralic igneous rock
 - (2) polymineralic igneous rock
 - (3) monomineralic sedimentary rock
 - (4) polymineralic sedimentary rock
17. The best evidence for determining the cooling rate of an igneous rock during its solidification is provided by
- (1) index fossils
 - (2) faults in the rock
 - (3) the crystal size of its minerals
 - (4) the disintegration of radioactive substances
18. Which minerals are found in the igneous rocks gabbro and basalt?
- | | |
|--------------------------|-----------------------------|
| (1) olivine and quartz | (3) pyroxene and orthoclase |
| (2) olivine and pyroxene | (4) orthoclase and quartz |

Base your answers to questions 19 and 20 on the diagrams below of five rock samples.



19. The basalt was most likely formed by
- (1) heat and pressure
 - (2) melting and solidification
 - (3) compaction and cementation
 - (4) erosion and deposition
20. Which sample is igneous and has a coarse texture?
- | | |
|------------------|-------------|
| (1) sandstone | (3) basalt |
| (2) conglomerate | (4) granite |

21. Which property is common to most dark-colored igneous rocks?
- | | |
|-------------------------|------------------------------|
| (1) high density | (3) abundant felsic minerals |
| (2) intrusive formation | (4) coarse-grained texture |
22. Which two processes result in the formation of igneous rocks?
- (1) solidification and evaporation
 - (2) melting and solidification
 - (3) crystallization and cementation
 - (4) compression and precipitation
23. Base your answer to the following question on the field map below, which shows the average size of particles deposited by streams that drained an area of Maryland during the Pleistocene Epoch. The field values represent particle diameters in centimeters.



Particles of sediment collected at location Y contain intergrown crystals of quartz, potassium feldspar, and hornblende. From which rock did these sediments most likely weather?

- | | |
|-------------|---------------|
| (1) granite | (3) sandstone |
| (2) gabbro | (4) limestone |