

I. **Written questions.** (**must** be answered for the paper to be graded). 1. Geology will deal with things such as streams, mountains, earthquakes, etc; meteorology will deal with weather, storms, etc.; astronomy will deal with the earth as an astronomical body, changes in daylight and seasons, eclipses, etc. *Write two or three sentences and/or questions about one of these areas that you wonder about or are interested in.* [0.5]

2. Write a sentence which is a true conclusion for the statements below (assume A and B are true).

A- Apples are a healthy food to eat.

B-The object in my hand is a "Golden Delicious" apple

C-_____ [0.3]

3. Imagine (and note below) at least one instance where your C would **not** be true. [0.2]

II. **Short answers.** Place the answer (a single letter, as described in each question) on the line at left. Note that, in matching questions, any answer may be used more than once, or not at all. [1.0/question for this quiz]

_____ 1. Which choice shows the two most common elements in earth's crust with most common element listed first and second most common element listed second?

A. Fe and Al B. O and C C. Si and O D. Si and Fe H. O and Si. N. none of these

_____ 2. The element in this list is A. CO B. NH₃ C. KF D. Kr N. none is an element

_____ 3. The compound in this list is A. N B. I C. Ni D. CO N. none is a compound

_____ 4. Which if any of these statements is NOT true of minerals?

A. they are solid C. they are naturally occurring H. they have definite properties

B. they are mixtures D. they have a fixed composition J. all are true N. none is true

_____ 5. Which if any of these is NOT a physical property of minerals?

A. streak B. color C. fracture D. crystal form H. hardness J. shape K. all are N. none is

_____ 6. The color of a mineral's scratch on a white porcelain plate is the property known as

A. color B. scratch C. streak D. two of these H. none of these

_____ 7. The property known as "crystal structure" refers to:

A. the mineral's color H. how a mineral breaks along crystal lines

B. the mineral's shininess J. the color of a mineral's scratch

C. the internal arrangement of atoms of the mineral's crystals

D. which other minerals a certain mineral can scratch N. none of these

There are hundreds, or perhaps even thousands, of minerals.

_____ 8. An unknown mineral (not one on Mohs list) is known to have a hardness of **3.8**. Which one of these mineral would scratch it? (refer to the Mohs hardness scale at right).

A. gypsum B. apatite C. calcite D. all of them N. none of them

_____ 9. Another unknown mineral (also not on Mohs list) is found to be harder than (will scratch) fluorite but softer than (won't scratch) quartz. The unknown mineral:

A. is softer than calcite

B. is harder than fluorite

C. has a hardness # lower than "6" on the Mohs scale

D. has a hardness # higher than "7" on the Mohs scale

H. two of these

N. none of them

Mohs hardness scale	
10-Diamond	hard
9-Corundum	↑
8-Topaz	
7-Quartz	↓
6-Potassium feldspar	
5-Apatite	↓
4-Fluorite	
3-Calcite	↓
2-Gypsum	
1-Talc	soft

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_____ 2. The element in this list is J. CO K. NH₃ L. KF M. Kr X. none of them

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K. they are solid M. they are naturally occurring T. they have definite properties

L. they are mixtures S. they have a fixed composition V. all are true X. none is true

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L. streak M. color P. fracture S. crystal form T. hardness V. shape W. all are X. none is

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5-Apatite	
4-Fluorite	
3-Calcite	
2-Gypsum	
1-Talc	soft