EXAMPLE EXAM 1 QUESTIONS
Make sure you understand why the right answer is right!

**ATOM WITH 10 PROTONS HAS HOW MANY NEUTRONS?**

1. 9
2. 10
3. 11
4. 1, 2 or 3
5. Not knowable

**WHICH MAGMA WILL BE LEAST VISCIOUS?**

1. a very hot magma
2. a very gassy magma
3. a silica rich magma
4. a felsic magma

**WHICH ELEMENTS ARE MOST COMMON IN SILICATE MINERALS?**

1. silicon and iron
2. silicon and sodium
3. silicon and magnesium
4. silicon and oxygen
5. silicon and calcium
Which of the following minerals is richest in iron?

1. feldspar
2. muscovite
3. **olivine**
4. pyroxene
5. quartz

A magma cools underground for 10,000 years. Its crystals will be...

1. **larger**
2. smaller
3. darker
4. lighter
5. greener

A ________ is a concordant tabular body.

1. laccolith
2. batholith
3. **sill**
4. dike
5. harpolith

__________ is the most abundant gas in a volcanic eruption.

1. oxygen
2. carbon dioxide
3. nitrogen
4. **water vapor**
5. sulfur dioxide
Which is formed by chemical weathering?

1. gravel
2. sand
3. silt
4. **clay**
5. unknown

Bowen's Reaction Series doesn't explain...

1. temperature at which minerals form
2. **crystal size of minerals**
3. chemical weathering stability
4. 1 and 3 above

Most of the soils in Texas are....?

1. laterites
2. texocsals
3. **pedocals**
4. pedalfers
5. paleosols

I found a sedimentary rock in which the particles are 1 mm in diameter. What kind of rock is this?

1. shale
2. mudstone
3. siltstone
4. **sandstone**
5. conglomerate
Frost wedging is most effective in...

1. Cairo
2. Anchorage
3. Mexico City
4. Chicago
5. Houston

Which minerals are most common in detrital sedimentary rocks?

1. quartz and calcium
2. calcite and clay
3. halite and feldspar
4. clay and quartz
5. gypsum and halite

The chemical weathering of feldspar into clay is...

1. ionosis
2. oxidation
3. dissolution
4. ionization
5. hydrolysis

This rock is....

1. mafic
2. felsic
3. metamorphic
4. sedimentary
If a rock starts to melt during metamorphosis it becomes....

1. slate
2. phyllite
3. schist
4. gneiss
5. magma

In a cross section I see a stratum of conglomerate. It was most likely deposited....

1. near a source.
2. far from a source.
3. in the middle of an ancient sea.
4. in the middle of an ancient lake.

Chemical sedimentary rocks are classified on the basis of...

1. color
2. particle size
3. type of bedding
4. mineral composition
5. none of the above

The least amount of metamorphic rock is generated in....

1. fault zone metamorphism
2. contact metamorphism
3. regional metamorphism
4. all above are equal
5. no way to tell
A non-foliated metamorphic rock made of up of calcite crystals is...

1. schist  
2. quartzite  
3. gneiss  
4. granite  
5. **marble**

The minerals found in a metamorphic rock can indicate...

1. pressure rock was subjected to  
2. heat rock was subject to  
3. the type of parent rock  
4. **1, 2 and 3 above**  
5. none of the above

The type of stress this diagram indicates is...

1. uniform pressure  
2. **differential stress**  
3. shear stress  
4. impossible to tell