

Minerals : W.S.-30

- 1)a) Name eight properties used to identify a mineral.
- b) Why is color not always useful when identifying minerals?
- 2) What does the shape of a mineral tell you?
- 3)a) Name the two most common elements in the Earth's crust.
- b) What is a silicate?
- 4) Give two properties of silicates that contain iron.
- 5) Find the mineral (other than copper) with the highest density. Why does it have such a high density?
- 6) What color is sulfur (usually)?
- 7) What color is malachite?
- 8) Is tourmaline a dark mineral?
- 9) Name a mineral that can be identified using hydrochloric acid (HCl).
- 10) Name a mineral that contains a lot of fluorine.
- 11) Give the chemical formula for kaolinite.
- 12) What is an ore?
- 13) Name the mineral with the formula CuFeS_2 . What is this mineral used for?
- 14) How would you tell the difference between white feldspar and white barite?

Answers : 1)a) The properties are; color, streak, luster, crystal shape, cleavage, hardness, density, and chemical composition., b) A mineral may have two or more colors (It depends on the impurities), or, different minerals may have the same color., 2) It tells how the atoms are ordered., 3)a) oxygen and silicon, b) It is a mineral which contains

oxygen and silicon., 4) They are dark and magnetic., 5) It is galena.
Galena contains lead which is very dense., 6) yellow, 7) blue-green, 8)
yes (contains iron), 9) calcite, 10) fluorite, 11) $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$, 12) It is
a mineral that contains a metal., 13) chalcopyrite, copper/iron ore, 14)
Feldspar is harder. It will scratch barite.