

المعشر الإبراهيمي الفترة المسائية الأهرام ٢٠١٨/١١/١٤

كيمياء



Kafr Elsheikh University
First Level (chemistry)

Faculty of Science
Subject: Mineralogy date: 4/1/2018
Geology Department
Total marks: 35

Answer the following questions

First question: Right or wrong (correct the wrong one): 10 marks

- 1-Pegmatites are fine grained rocks.
- 2-Bauxite is a copper ore mineral.
- 3-Streak is the color of mineral in powdered form
- 4-Qualitative analyses determine how much of each element in the minerals.
- 5-Same cleavage quality and quantity present in all specimens of the same mineral
- 6- The hardness of fluorite mineral is higher than that of quartz.
- 7- Galena has a non-metallic luster.
- 8- Diamond and graphite have the same crystal structure.
- 9-Rock forming minerals are those found in abundance in different rocks.
- 10- Beta decay is due to the ejection of a helium nucleus.

Second question: Find the scientific term 9 marks

- 1-Splitting of an original magma into fractions of different composition.
- 2- A process of mineral formation from the gaseous phase.
- 3-Ability of a mineral to transmit light.
- 4-The emission of light by a mineral due to the excited by ultraviolet light.
- 5- The tendency of a mineral to split along one or more smooth flat planes .
- 6- If a mineral reforms its original shape after a stress is released.

Third question: Complete the following sentences: 11 marks

- 1- The base unit of the silicate minerals is-----
- 2- The Controls on rates of weathering are: 1-----2-----
- 3- Chemical test to discriminate between aragonite and calcite is-----
- 4- Factors control the specific gravity of minerals are: 1-----and 2-----
- 5- Mineral's color can be changed by: 1-----and 2-----
- 6- Any mineral must be: 1-----,2-----and 3-----.

Fourth question: 5 marks

From the microprobe analysis, the following oxides weight percent were determined.
A- Calculate the chemical formulae of this mineral B- Give the name of this mineral

oxides	weight %			
BeO	13.97			
Al ₂ O ₃	19.0			
SiO ₂	67.03			
total	100.0			

Atomic weight of: Beryllium =9 Aluminium =27 Silicon=28.09 Oxygen=16