

2018 GEOL-157 Exam 1 Topics

50 questions – 25 points. 0.5 points each question; 20 True/False, 30 Multiple Choice

Where are active volcanoes located and why?

The type of rock and the location of the Palisades sill.

The different types and names of plutonic and volcanic igneous rocks.

The tectonic setting of the west coast of South America.

Radicals are groups of tightly-bonded elements that behave as a single entity.

The geometry of dikes and sills with respect to intruded bedrock.

The relative amount of silica in mafic and felsic rocks.

What type of rock fracturing is common from cooling and contraction of lava and magma at shallow depths?

Standard reference thickness of oceanic and continental crust.

Why did it take so long for plate tectonics to be accepted by the scientific community?

What are three probable mechanisms that drive plate tectonics?

Know what Wilson cycles are with respect to theory of supercontinent and ocean basins.

Why do rare-Earth elements have unique properties?

What is the tectonic setting of Japan?

What is hypsography with respect to topography?

Melting of crustal rocks produces silica-rich magmas.

What are the relative hardness of calcite, quartz, feldspar, and diamond?

Who introduced the heliocentric view and when?

Atoms -> Elements -> Molecules -> Minerals -> Rocks

What is the difference between crystalline solids and crystals?

Know the three types of tectonic-plates boundaries and specific example of each.

How do elements Hydrogen (1) through Iron (26) on the periodic table form?

What is retrograde planetary motion and what theory did that help explain?

What are the three principle types of chemical bonding and how do they differ?

What is mineral cleavage?

What are the five most common groups of silicate rock forming minerals?

What are ferromagnesian minerals?

What are mineral resources and some common examples?

Why and how are the different silicate-mineral group classified?

What and where are terrestrial planets in our solar system?

What is pyroclastic material and what types of rock does it form?

What is pegmatite and how does it form?

What are native elements?

What are the three primary groupings of rock?

What are typical drift rates of tectonic plates?

What is the Doppler effect?

What is the Coriolis effect?

What is the uniformitarianism?

What is the scientific method?

What is the silicate tetrahedron?

What does vertical exaggeration in Google Earth do?

What is the basic difference between raster and vector geospatial data?

What is the rock cycle?

What is Bowen's reaction series, especially with respect to when mafic and felsic minerals form during the crystallization of magma?

Do wet or dry rocks melt first?

What are two common names for the light and dark-colored silica rocks having sheeted crystalline structure?

What is isostasy?