Comments on Second Hour exam

Plate Tectonics: There will be questions on plate tectonics and especially on the theory. You may remember that the first exam came along at a time where I had gone over evidence (fit of continents, paleomagnetism, age progression of Hawaiian volcanoes) but had not gone over the theory (nature of plate boundaries, lithosphere vs asthenosphere).

Decompression melting: occurs under ridges and hot spots. Rising mantle material remains hot because rock materials are poor heat conductors. Ascent path of the rising mantle crosses the melting curve as shown in my powerpoint (at the end of the second volcano lecture)

Cinder cones form by ejection of basaltic pyroclastic material from a central vent…the cinder cone is just a pile of pyroclastic debris.

Plutonism – this is the process by which magmas invade the crust and crystallize (freeze) below the surface. Characterized by slow cooling which leads to relatively coarse crystal size. Plutons are later exposed due to erosion and uplift

The test is not cumulative so the focus will be on material covered since the last exam…i.e. plate tectonic theory, earthquakes, volcanoes, and weathering reactions

An example of a transform boundary is the San Andreas Fault in California…transform boundaries are required by the movement of plates on the surface of a sphere – you can't have just divergent and convergent margins – you need places where plates slide past each other = transform boundary.

Richter scale: know which numbers correlate with what type of intensity although I ***won't*** ask a question like "Is a magnitude 6 earthquake strong, major, or great?"…have some sense of the frequency of earthquakes of different magnitudes – see pg. 72 in Montgomery