

Test Coverage: Chapters 1, 8, 2, and 3 (Intro to Phys. Geol., Geol. Time, Minerals, Igneous Rocks)

Test Format: Multiple choice, short answer/essay style questions, and fill-in-the-blank (bonus only).

Potential Short Answer/Essay Style Questions:

1. Differentiate between a scientific fact, hypothesis, theory, and law.
2. What is plate tectonics? Name 3 major tectonic plates and 1 minor plate.
3. Discuss the basis for Carbon-14 dating including some limitations for this dating technique. How is Carbon-14 dating different from isotopic dating techniques?
4. Describe in detail the Principle of Unconformities and the different types of unconformities.
5. What is a silicon-oxygen tetrahedron? Name and describe the five basic silicate structures. Provide mineral examples of the 5 basic silicate structures.
6. Describe 4 common physical properties and provide a mineral example for each property (i.e. luster, metallic = galena; non-metallic = calcite).
7. Discuss the relationship between the origin of igneous rocks and igneous rock textures.
8. Discuss the three mechanisms that control how a rock is melted.

Additional Formatting Notes: The exam will consist of 35-45 multiple choice and 2-3 short-answer/essay questions that I will pick from the list above. The material from the 5-6 essay questions I do not pick will be covered as possible multiple choice or fill-in-the-blank questions; therefore, the ability to properly answer all the essay questions is excellent preparation for both the essay and some of the multiple choice questions.

What constitutes a well-answered essay question? It is typically well-organized and it answered in 6-10 sentences or in some cases bulleted points. The information provided in the answer actually addresses the question. Good answers will typically include examples of earth materials, processes, or structures where necessary.