

ESC 115 Physical Geology

Fall, 2010

Test 1

The first 11 questions refer to the slides we will view together in class. Please use the space provided to answer the questions.

1. **4 pts** How were the rocks shown likely transported? Why do you think so?
2. **1 pt** If you can't identify the mineral shown, what must you do?
3. **4 pts** How could you tell if the mineral shown is calcite, quartz, or halite? Explain.
4. **9 pts** What are the four types of bonds common in minerals (not hydrogen bonds)? Give an example mineral for each type. Which type is shown in the slide?
5. **3 pts** What are three properties of the mineral shown?
6. **4 pts** The slide shows one way in which silicate minerals form. Is the mineral shown likely to be mafic or felsic? Why?

7. **4 pts** The C^{14} form of carbon is unstable and decays radioactively. How do scientists take advantage of this?

8. **4 pts** What are two features of the history of Dubuque related to the figure shown?

9. **6 pts** What does the white patch in the middle of the figure represent? What are two ways that Dubuque was affected?

10. **4 pts** Why is the area circled in red important to geologists? How did UNO (my old school) contribute to geologists understanding relative to this issue?

11. **3 pts** Which is older, the beige or gray rocks? Why?

12. **4 pts** How does geology relate to the making of underwear in North Carolina? Explain.

13. **6 pts** What is the geologic term for their age for the age of rocks under Dubuque? The rocks of that age are in two very different forms. How has that impacted the use of you tuition dollars? What is the age of the rocks under the Dubuque airport?

14. **9 pts** Sketch and label the rock cycle, including the processes for forming the rocks.

15. **4 pts** Where is the closest place you could go to see billion-year-old rocks (besides a museum.)

16. **4 pts** Why is it important to take all your antibiotics when you are sick? Explain.

17. **4 pts** How do evaporites form? Give two example minerals.

18. **3 pts** What is the difference between uniformitarianism and catastrophism?

19. **3 pts** If we get rain this week in Iowa, explain the likely cause.
20. **4 pts** Explain the phrase, *Resistant rocks stand high in relief*. How does this relate to waterfalls?
21. **8 pts** Construct a chart to show at least 3 differences between felsic and mafic silicate minerals. Which is more commonly found on continents? Why?
22. **5 pts** What was one review question not used on the test that you prepared for? Answer it.