

Fall 2009 – Exam #2 (30% of final grade) – Chapters 3, 4

You will be required to answer 10 of the 16 questions. I will choose 5 questions that everyone will be required to answer and you will choose 5 questions from the remaining.

1. (Chapter 3) With what earth movements are earthquakes associated? What are tsunamis and how do they develop?
2. (Chapter 3) What is the distinction between mechanical and chemical weathering? How is weathering responsible for landform creation?
3. (Chapter 3) What are the three classes or main groups of rocks and how are they formed?
4. (Chapter 3) Young volcanoes and the epicenters of earthquakes are often associated with each other. Why?
5. (Chapter 3) Discuss different ways the earth's surface can be eroded.
6. (Chapter 3) Discuss ways that deposition can change the earth's surface.
7. (Chapter 4) Define weather and climate. What are the differences between the two? Give an example of weather and give another example of climate.
8. (Chapter 4) What determines the amount of insolation received at a given point? Does all potentially receivable solar energy actually reach the earth's surface? Why?
9. (Chapter 4) How is the atmosphere heated? What is the environmental lapse and what does it indicate about the atmospheric heat source?
10. (Chapter 4) What is the relationship between atmospheric pressure and surface temperature? What is a pressure gradient and of what concern is it in weather forecasting?
11. (Chapter 4) In what way do land and water areas respond differently to equal insolation? How are these responses related to atmospheric temperatures and pressures?
12. (Chapter 4) Draw and label a diagram of earth's wind and pressure system. Why do the winds and pressure belts occur where and the way they do?
13. (Chapter 4) What is relative humidity? How is it affected by changes in air temperature? What is the dew point?
14. (Chapter 4) What are air masses? What is a front? Describe the development of a mid-latitude low pressure system showing how it relates to air masses and fronts.
15. (Chapter 4) Summarize the temperature and rainfall characteristics of three (3) the following climates:
 - Tropical Wet (Af)
 - Tropical Wet & Dry (Aw)
 - Desert (BW)
 - Mediterranean (Cs)
 - Humid Continental (Dfa)
 - Subarctic (Dfc/d)
 - Tundra (ET)
16. (Chapter 4) What causes the greenhouse effect? What impact might it have on the earth's environment.