Reading Questions Geo-Mexico: The Geography and Dynamics of Modern Mexico, Richard Rhoda and Tony Burton (2010).

These questions serve as a study guide to the assigned readings from Rhoda and Burton. Any material here may arise on an exam or quiz. You do not need to turn this in, though it would be wise to download the document, make spacing between the questions, print out the sheets, and then fill in the answers.

Chapter 1 The Dynamics of Mexican Geography

1. What is the basic premise of the book, according to the authors on page 1?
2. List three examples the authors provide to support the basic premise of the book.
3. List the four major traditions of study in modern geography. Which of these is utilized in the book?
4. Indigenous languages are widely spoken in central and southeast Mexico today. Place names often are based on these native languages. (see page 4) Break the following place names into subparts and then write out their meaning, using the Nahuatl language dictionary and information on page 4: <http://www.freelang.net/online/nahuatl.php?lg=gb>
5. Popocateptl:
6. Tehuantepec:
7. Ayotlan:

Chapter 2 Earthquakes and Volcanoes

1. The authors contrast the general landscape of the 1) United States and Canada with 2) Mexico in the first paragraph, in terms of general elevation, in terms of flatness, and in terms of the altitude where the population lives. Summarize each.
2. What are “plates” in the theory of plate tectonics?
3. What are the three types of plate boundaries, and which of the three are most important for understanding big earthquakes and volcanoes for Mexico? (this also applies to much of Central America)
4. Identify the two major plates that form convergent boundaries for Mexico. Which plate is being pushed underneath, and what are the consequences? (read on for more info. in Chapter 2)
5. What are fold mountains and the process in which they form? Which of Mexico’s major mountain ranges were formed this way, and when? (see pages 11 and 12 for maps of these)
6. After the formation of the fold mountains, what happened of major consequence in the Gulf of Mexico? List the three outcomes from this event listed by the authors.
7. When was the Volcanic Axis formed?
8. Which side(s) of Mexico has more active earthquakes?
9. For the past hundred years, how does the power of the earthquakes in Mexico compare with those of the United States?
10. Where was the epicenter of the 1985 earthquake? Explain why the damage was worse in Mexico City more than anywhere else.
11. Be familiar with the general location of the Volcanic Axis from the map on page 9.
12. What do families from Mexico City do in the cold season at Nevado de Toluca?
13. What is the nickname of the most famous of Mexican volcanoes?
14. What was globally significant about Chichón? Why was the cooling effect not greater? In what context was Mt. Pinatubo mentioned?
15. Mt. Hood is the highest point in Oregon, just over 11,200 feet above sea level. Where would it rank on the table of Mexico’s major volcanoes?
16. Go to the link: <http://atlasobscura.com/place/san-juan-parangaricutrio> (or google san juan parangaricutiro)

Be familiar with the basic story. The setting is the Volcanic Axis, State of Michoacán.

Chapter 3 Relief and Landforms

1. Know where each of the 15 landform regions is from the Figure 3.2
2. Know a couple of basic facts about each of the landform regions.
3. In addition to what you are learning from question 2 above, the following are a few other highlights of this chapter to know:
4. Prior to the opening of the Gulf of California, where was the Baja Peninsula?
5. What has kept the Sea of Cortez from flooding into parts of interior California including the Imperial Valley?
6. Be sure in #3 above to note the role of the Sierra Madre Occidental with regards to transportation.
7. What is it about the physical characteristics of the Sierra Madre Oriental that means that their role in transportation has not been as restrictive as that of the Sierra Madre Occidental?
8. How does Copper Canyon compare with the Grand Canyon of the United States?
9. The Great Plain is part of what province that extends all the way north to Canada?
10. Where are Mexico’s newest mountains found?
11. Where can cenotes be found, and what are they?

Chapter 4 Land of Diverse Climates

1. More important than the difference between winter and summer temperatures in much of Mexico is what, according to the authors?
2. Be conversant with the roles of a) latitude and solar energy, b) altitude, c) continentality, d) ocean currents, e) the Hadley Cell and prevailing winds (especially the trade winds) – as each of these pertain to temperatures and the distribution/timing of precipitation. (Note that I will be lecturing at some length on this so this will help you understand this section better)
3. List the major climatic hazards, their characteristics, their timing, and their geography.
4. What are the two tropical climate types, and what is the basic distinction between them in terms of precipitation?
5. In general, where are a) the drier and b) the wetter climates of Mexico?
6. What is the meaning of *tierra templada*?
7. What small part of Mexico has dry summers and wetter winters?
8. The climate of Mexico City compared with zones surrounding the city has changed in what ways? How has the temperature gradient between the city and surrounding areas changed from ~1900 to the 1980s? What are the probable causes of these changes, according to the authors?
9. How has climate changed been hypothesized to affect future corn production?

Chapter 5 Ecosystems and Biodiversity

1. List three factors that greatly enrich the species diversity of Mexico, as found at the beginning of the chapter.
2. Approximately what share of all species on earth is found in Mexico?
3. How does the number of species of flora in Mexico compare with that of the United States?
4. How many mammal species are found only in Mexico?
5. The authors use a relatively simple five category natural ecosystem classification system. (Believe me, there are much more complex ones out there!) Be aware in a general way how the climate types of Chapter 4 correlate with these ecosystem types.
6. Why are the soils of tropical evergreen forests not as rich as might be imagined?
7. The tropical deciduous and thorn forest types are different in what two basic ways with the climate of the tropical evergreen forests? (note that answer is found in the beginning of that section)
8. Temperate forests are found in areas that are different in three ways from the tropical deciduous forests?
9. Of the four forest types above, which one is known most for its pine trees? How many pine tree species have been recognized in Mexico?
10. In the Volcanic Axis, what would forest type might you find just above the pine-fir forest zone (and just below the tree line)?
11. When did a major wave of deforestation of pines happen, and for what uses?
12. In which of the forest ecosystem types have most of the large populations of Mexico been found?
13. How does Mexico rank globally in terms of the number cacti species?
14. What economic activity occupies over half of Mexico’s land area? What are some of the environmental effects where not properly done, according to the authors?
15. Be familiar with the box on Native and non-native crops and animals. We may go over this in class.
16. What are the two or three key points of the box about the **value of rainforests**?
17. What did the Noxhixtlán Valley Mixtec Indians of the State of Oaxaca do to double the width of the farmable valley land they lived in over a ~1000 year period?
18. What has Mexico done to safeguard its biodiversity?