NAME

87.202 - PRINCIPLES OF EARTH & ENVIRONMENTAL SYSTEMS I STUDY QUESTIONS V

EARTHQUAKES

1. Explain the *elastic rebound theory*.
2. Distinguish between the *focus (hypocenter)* and *epicenter* of an earthquake.
3. Distinguish between *body* and *surface* waves.
4. Distinguish between *P* and *S* waves.
5. S-waves do not pass through the outer core of the earth. What does this tell us about the physical properties of the outer core?
6. Why is there a *Shadow zone* and what does this tell us about the interior of the earth?
7. Distinguish between earthquake *magnitude* and earthquake *intensity*.
8. The energy released by magnitude 8 earthquake is how many times greater than the energy released by a magnitude 4 earthquake?
9. Why are Boston and San Francisco in the same seismic risk zone?
10. Distinguish between a strike-slip fault, a normal fault, and a reverse fault.
11. What happened when wastes were pumped into the subsurface at the Rocky Mountain Arsenal. Why did this happen?
12. Name and briefly describe three ways that have been used to try and predict earthquakes.
13. Name and briefly describe three engineering solutions to minimize earthquake damage.
14. Do seismic velocities vary in the mantle? If so, what information can we get from these variations?