

1. How can magnetic polarity reveals be used to determine the timing of past geologic event? 10%
2. How would you distinguish a chain of islands caused by a hot spot from a chain of islands by a seduction? 10%
3. Discuss the processes involved in the most important types of mechanical weathering. 10%
4. Describe two ways that you might be able to determine the uplift rate in a coastal mountain system 8%
5. List the factors that affect the mass movement. 10%
6. Define "stream gradient," "strum load," "stream capacity," and "competence." 8%
7. Describe the steps involved in the growth of a stream meander and formation of an oxbow lake. 8%
8. What is the effective depth of erosion by surf and what determines this depth? 8%
9. What geological features would you look for to determine whether a coastal region had experienced emergence or submergence in recent geological past? 10%
10. What effects are produced by excessive pumping of groundwater? 8%
11. What geological evidence indicates that the present concentrations of carbon dioxide and methane in the atmosphere are exceptional compared to those of the last several hundred thousand years? 10%