

Team Name-

Team Number-

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Hydrogeology Test Part 1

1. _____ drainage patterns are commonly seen on volcanoes and domes, whereas _____ drainage patterns are commonly seen as a characteristic of folded mountains such as parts of the Appalachian mountains.

2. The difference between a gaining stream and a losing stream is that:
 - a. A gaining stream has water transfer from the water table into the stream, whereas a losing stream has water transferred from the stream to the water table.
 - b. Gaining streams are present uphill whereas losing streams cause erosion and are present downhill.
 - c. A losing stream has water transfer from the water table into the stream, whereas a gaining stream has water transferred from the stream to the water table.
 - d. Losing streams are present uphill whereas gaining streams cause erosion and are present downhill.

3. Briefly describe a cone of depression in either a consolidated or unconsolidated well.

4. Differentiate these three briefly: Bored (AKA shallow) wells, Consolidated (AKA rock) wells, Unconsolidated (AKA sand) wells.

5. Name and explain briefly 2 different types of groundwater remediation methods for managing a DNAPL and a LNAPL contamination in groundwater. (1 specifically for a DNAPL contamination and 1 specifically for an LNAPL contamination)

6. Briefly explain the term “point of use treatment”

7. What is Darcy’s law and how can it be used (explain briefly)?

8. What is hydraulic head?

9. Briefly describe the vadose zone (also known as the aeration zone or the unsaturated zone).