

Study Questions for Exam 1 - GE 498 - Spring 2000

1) Draw the structure of the following compounds.

n-octane

2-bromo-1-1-chlorobutanoic acid

2-methyl-6-ethyloctane

2) Rank the chemicals above from smallest to largest Kow based on structure.

3) Which chemical is the most hydrophobic?

4) Which chemical is most likely to partition onto the solid phase organic matter?

5) Which chemical has the largest retardation factor?

6) Give three of the assumptions we made when using the simple mass balance calculations we have covered in class.

7) Briefly describe two types of isotherms used to model adsorption.

8) What controls the pH of groundwater?

9) Under what conditions (Eh, pH) would you expect adsorption on ferric hydroxide surfaces to control trace metal concentrations?

10) Name three physical locations that a water soluble contaminant could be found in an aquifer if the concentration does not exceed saturation.