

Bio 111 Pre-Lab for Lab #02: Name _____ Chromatography TA & Sect. _____

1) The lab manual describes using “extreme cases” to see if particular a particular property is relevant to a molecule’s R_f . Possible features include, but are not limited to: size, hydrogen bonding capability, charge, hydrophobicity, structure, etc.

a) Give the names of two dye molecules from the lab manual that are “extreme cases” – that is, they are very different in some particular property. (1 pt)

Dye 1 _____

Dye 2 _____

b) Which property of these two molecules differs significantly between them? (3 pts)

2) The lab manual also describes using “very similar molecules” to isolate the effects of one simple change in a particular property of the molecule.

a) Give the names and draw the structures of two dye molecules from the lab manual that are very similar but differ in a small detail. (1 pt)

Dye 1

Dye 2

b) On the diagram above, circle the part of each molecule that is different in the two dyes. (2 pts)

c) Briefly explain how this difference effects the properties of the two molecules (for example, “Dye 2 will be more hydrophilic than Dye 1 because...”). (2 pts)

3) On the back of this sheet, give 3 to 5 short (~1 sentence each) bullet points describing, *in your own words*, what you will be doing in the lab today. There are a wide range of full-credit answers here; we will grade this as a 1-point check off.

