

Name: \_\_\_\_\_ Dr. Reichler's Bio 325 TTh 7:30-9pm Fall 2007 Quiz 10/18

- 1) Would you expect the chimpanzee or human version of the huntingtin gene to be larger?
  
- 2) Do B-cells have more or less DNA than other cells in your body? How is this related to the function of B-cells?
  
- 3) By looking at the DNA sequence, how would you identify a hox pseudogene?
  
- 4) What different information can be gleaned from comparing transposons between humans and chimps or different people? Why is this information partially dependent on knowing the time since the last common ancestor?
  
- 5) You identify the cause of a disease as a mutation in a gene from a transposon disrupting the gene. Without genetic information about the patient's parents, how could you determine if this transposition occurred in the affected person, or if they inherited the disrupted gene from their parents?
  
- 6) What might cause the DNA from two people to give the same pattern in RFLP analysis?
  
- 7) What are the four "ingredients" for doing PCR, and how does each "ingredient" allow DNA to be amplified?
  
- 8) What is one advantage to modifying an organism by genetic engineering versus artificial selection?