

Name: _____ Dr. Reichler's Bio 325 TTh 7:30-9pm Fall 2007 Quiz 11/15

- 1) How could PCR be used to differentiate between a haploid or diploid cell? Would a single PCR reaction be sufficient?
- 2) Which occurs first during meiosis, crossing-over or random assortment?
- 3) Would having fewer chromosomes lead to more or less genetic diversity in offspring?
- 4) Are the sister chromatids that line up in the second cell division of meiosis identical?
- 5) What can explain the disappearance in one generation and later reappearance in a subsequent generation of a trait?
- 6) Can one parent with A blood type and another parent with B blood type have an offspring with O blood type?
- 7) If liking chocolate is coded for by a gene on the X chromosome with not liking chocolate as the recessive allele, and a woman who dislikes chocolate mates with a man who likes chocolate, and they are having fraternal male/female twins, what is the probability for each of their offspring to like chocolate?
- 8) What do the changes in male:female demographics at different ages since 1950 say about the likely cause of the change in male:female ratio as people get older?
- 9) Why is tracing ancestry via mitochondrial DNA easier than using nuclear DNA?
- 10) What are two reasons that females provide more than 50% of their DNA to their offspring?