

2026 Spring BIOL 1209

Section 10, Quiz 02

Name: _____

Date: _____

Time: 10 min

Max. points: 10

1. In your last lab you used an AMP like PopGen to obtain a graph of **fitness vs $p(A)$** for a population. **(2 pt)**
 - a. What was the dependent variable for this experiment? _____
 - b. What was the independent variable for this experiment? _____
2. In the replica plating experiment, you used three fresh plates, namely Control, High-Tet and Low-Tet. What is the correct order in which to perform the replica plating with these three plates, so as to prevent bias? **(2 pt)**
3. In a given population, list the values of $p(A)$ when: **(4 pt)**
 - a. Allele A has been **lost** _____
 - b. Allele A has been **fixed** _____
 - c. Allele a has been **lost** _____
 - d. Allele a has been **fixed** _____
4. The ability to taste phenylthiocarbamide (PTC) in humans is determined by a gene with two alleles T and t . Human beings carrying the dominant allele T can taste PTC. In a population where $p(T) = 0.4$, what is the frequency/fraction of successful tasters, assuming it follows Hardy-Weinberg equilibrium? Show your work. **(2 pt)**