Name: _____ MCDB 4101

Q1: You identify an allele of a gene that produces a dominant disease phenotype. Suggest two distinct mechanisms that could produce this outcome. □ no idea how to answer the question.

Q2: You discover a dominant allele of a gene that produces a severe disease phenotype. Later you identify a small subset of people who have the disease-causing allele, but do not have the disease. Provide a plausible explanation for this situation? □ no idea how to answer this question.

Q3: You identify a recessive allele that is present a high frequency in the population. When homozygous, the presence of this allele leads to early childhood death. Suggest a plausible mechanisms that could lead to this situation. □ no idea how to answer this question.

Q4: You identify an allele of a gene that produces a recessive disease phenotype. Suggest two distinct mechanisms that could produce this situation. □ no idea how to answer this question.

Q5: You compare the genomes of humans and other mammals. You discover that one set of sequences, conserved in other mammals, have either been deleted or changed in humans. What process(es) could explain this observation? □ no idea how to answer this question.