

BIOL 1 > Potential Topics for Essay Questions >> Lecture Final (Sp2021) >>> May.11.2021

1. Compare & contrast between viral genomes & genomes of the 3 domains of life
 2. Explain how DNA molecules can be amplified by PCR
 3. Compare and contrast between embryonic and adult stem cells
 4. Explain how noncoding DNA sequences can be applied to incriminate a suspect
 5. Discuss 2 types of direct observations of evolutionary change lectured in class
 6. Elaborate on the different types of genetic variation
 7. Compare & contrast between the 2 types of viral replication mechanisms
 8. Explain how you would insert a human gene into a cloning vector
 9. Compare & contrast between restriction endonucleases & CRISPR-Cas9 system
 10. Discuss 2 proposed mechanisms to explain the evolution of genomes
 11. Compare & contrast between homologous & analogous structures
 12. Elaborate on the application of the Hardy-Weinberg equation
 13. Discuss 3 mechanisms used by bacteria to fight against phage infections
 14. Explain how you would select bacterial colonies carrying recombinant plasmids
 15. Compare & contrast between 2 possible outcomes in using CRISPR-Cas9 system
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