Chapters 10 & 11 Quiz

Use the following DNA Sequence for questions 1-7: TAC ATG GTA CTA ACC ATC. You will need to look up a codon chart to answer question 3 online. Resources you used for questions 9 and 10 for examples need to be referenced. Providing references will be worth one point out of 14 total.

1. What is the mRNA sequence? (1)
2. What is the tRNA sequence? (1)
3. What is the amino acid sequence? (1)
4. Give an example of a codon from the mRNA sequence. (1)
5. Give an example of an anti-codon. (1)
6. By changing only one base, re-write the DNA sequence to add a mutation that doesn’t affect the overall function of the protein that is synthesized. (1)
7. By changing only one base, re-write the DNA sequence to add a mutation that does affect the overall function of the protein that is synthesized. (1)
8. Use the information from the previous questions to explain why some long-term smokers develop lung cancer while others do if who engage in the same behavior do not. (2)
9. Based on the process of natural selection, explain how the saber tooth tiger ‘evolved’ into our current tiger. Provide two specific examples of body features on the tiger that changed and predict how the change occurred. (2)
10. In your opinion, what is the most valid piece of evidence for evolution? What is the least valid? Explain why using a specific example for each. (2)