Bioinformatics

Due Date: ______________________

Name ______________________

1. Using the Genetic Code, state the sequence of amino acids that will result from the following RNA sequence.
   Begin: AUG—UUU—CAC—AGC—CCU—AUU—GGG—UCA—GCG—UGA :End
   _______________________________________________________________

2. Describe the role of each of the following in the process of transcription and translation.
   mRNA
   tRNA
   rRNA

3. Describe how BLAST is used to align protein sequences.

4. Describe what a "reading frame" is and how it pertains to protein synthesis.

5. Describe the difference between an intron and an exon.

6. Name the two organizations that are involved with the Ensembl project (www.ensembl.org).

7. What is the purpose of the Ensembl project?

8. Describe what a phylogenetic tree is.