

Name: \_\_\_\_\_ Dr. Reichler's Bio 325 TTh 7:30-9pm Fall 2007 Quiz 9/20

- 1) Nucleotides should be able to be added to either end of RNA, but are only added at the 3' end. Why?
  
- 2) What is different about the size of prokaryotic and eukaryotic promoters, and how does this affect transcription initiation?
  
- 3) How is the information in a mature mRNA different from the coding region of the gene?
  
- 4) Are the number of genes comprising an organisms genome necessarily indicative of the number of different proteins that can be produced by that organism?
  
- 5) In the experiment looking at the function of the 5' cap and poly-A tail, what two things did the researchers measure and what did each measurement tell them?
  
- 6) What happens at translation initiation that explains the common functions of the 5' cap and poly-A tail?
  
- 7) What are the three RNA molecules involved in translation, and what does each do?
  
- 8) There are 64 codons, what are two reasons that there are less than 64 tRNA's?
  
- 9) Which ribosome would have a longer polypeptide attached to it, one at the 5' end or the 3' end of the mRNA?