**From Gene to Protein Questions**

1. Compare and contrast transcription and translation in terms of their purpose and location.
2. The sequence of a fragment of one strand of DNA is AATTGCATATACGGGAAATACGACCGG. Transcribe this sequence into mRNA.
3. The following mRNA strand is being used to assemble a polypeptide strand by ribosome:

5’ – AUGCUUGCUCAUCGGGGUUUUAA-3’

1. write out the amino acids that will be assembled, in their correct order.
2. Provide an alternative mRNA sequence with four or more changes that would translate to the same amino acid sequence.
3. Write out all possible RNA base codons that could code for the following amino acid sequences.
4. Arg-Trp
5. Leu-Pro
6. Met-Phe-Trp