Chapter 10

1. Which one of the following people demonstrated that DNA is the genetic material of bacteriophages?
   a. Watson and Crick
   b. Hershey and Chase
   c. Franklin
   d. Wallace
   e. Pauling

2. Which one of the following is not true?
   a. The DNA molecule has a uniform diameter?
   b. In a DNA molecule, adenine bonds to thymine and guanine to cytosine.
   c. The DNA molecule is in the form of a double helix.
   d. Watson and Crick received a Nobel Prize for their description of the structure of DNA.
   e. The sequence of nucleotides along the length of a DNA strand is restricted by the base-pairing rules.

3. Why does a DNA strand grow only in the 5’ to 3’ direction?
   a. because DNA polymerase can only add nucleotides to the 3’ end of the growing molecule.
   b. because DNA polymerase can only add nucleotides to the 5’ end of the growing molecule.
   c. because mRNA can only read a DNA molecule in the 5’ to 3’ direction.
   d. None of the choices are correct.

4. Which one of the following enzymes catalyzes the linking together of RNA nucleotides to form RNA?
   a. RNA Polymerase
   b. RNA ligase
   c. a ribozyme
   d. reverse transcriptase
   e. tRNA

5. The transfer of genetic information from DNA to RNA is called
   a. translation
   b. transcription
   c. initiation
   d. elongation
   e. promotion