Chapter 7 practice questions:

1. DNA strands are complimentary. What does the term complementary mean in terms of DNA?

a) The DNA from one strand is antiparallel to the other strand.

b) The DNA from one strand determines the sequence of the other strand.

c) The DNA from one strand interacts with the other strand.

d) None of the above

2. Which direction along the template is the new DNA strand synthesized in replication?

a) 3’ to 5’

b) 5’ to 3’

c) both directions

d) None of the above

3. Which is statement is correct about DNA polymerase?

a) It reads the DNA template in both directions ie 5’ to 3’ and 3’ to 5’ during replication

b) Can synthesize DNA only in one direction, which is 5’ to 3’

c) Reads the order of nucleotides in the template strand to make a complementary new strand

d) All of the above

e) b and c

f) a and c

4. The helicase enzyme is required for what process during DNA replication?

a) Removing the RNA primer

b) Joining the Okazaki fragments together to generate a DNA strand

c) Unzipping the DNA strands

d) None of the above

5. True or False: RNA is not required for DNA polymerases during genome replication.

a) True

b) False

6. The process of Transcription in bacteria refers to:

a) Generating a genetically identical genome to be passed on to daughter cells.

b) Decoding the RNA to make DNA

c) Using the information stored in DNA to make RNA

d) Generating proteins from RNA

e) none of the above

7. True or False: The sequence of RNA is not complementary to a gene

a) True

b) False

8. The genetic code is the information stored in the mRNA that is organized into..?

a) sets of 2 nucleotides called codons

b) sets of 3 nucleotides called anticodons

c) sets of 3 nucleotides called codons

d) none of the above

9. True or False: Stop codons are required for ending RNA synthesis.

a) True

b) False

10. True or False: Three main steps called Initiation, elongation and termination take place during both Translation and Transcription

a) True

b) False