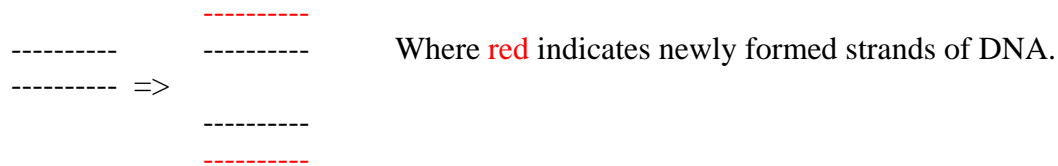


Quiz 5 Key
BI-102, Winter '04-'05, Dr. C. S. Tritt

Each of the following three problems is worth the same amount. Answer each question completely but succinctly. Use the amount of space provided as a guide to how detailed to make your answer.

1. With respect to DNA replication, explain what is meant by the term semi-conservative (you may want to draw a labeled or color coded picture in your answer to this question).

When DNA is replicated, each “new” double helix consists of one old strand and one new strand as shown below:



2. List the three stages of DNA replication in order.

Initiation, Elongation and Termination.

3. Briefly describe the function of each of the following types of RNA:

rRNA – Ribosomal RNA. Part of the ribosomes that are the site of protein formation.

tRNA – Transfer RNA. Many types. Each gets connected to a particular amino acid. Used by the ribosomes to recognize codons and add the appropriate amino acid to the growing protein.

mRNA – Messenger RNA. Contains a sequence of bases that actually specifies the sequence of amino acids in a particular protein.

4. Name **or** describe each of the 3 “sites” of a ribosome.

A – where the **A**mino acids arrive

P – where the **P**rotein is held

E – where the discharged tRNA **E**xits.