

Chapter 10: Replication Part 1

Horizontal Replication

What are the four steps of horizontal replication?

- i.
- ii.
- iii.
- iv.

Where does the initiator protein bind to start the replication process?

What are the three unwinding proteins and what is the specific purpose of each?

- i.
- ii.
- iii.

The enzyme _____ catalyzes DNA synthesis using the DNA template. However, it needs a 3' OH to begin synthesis on the template _____, which there can't be at 3' OH) has to use a primer.

How long is the primer and what is it made out of?

Bacteria have five different types of DNA polymerases. Which polymerase is used to synthesize the new DNA strand?

Which polymerase is used to remove RNA primers? _____
 Which polymerase are used for DNA repair? _____

Place a check mark next to the capabilities that each of the DNA polymerases possess.

	5' → 3' polymerase activity	3' → 5' exonuclease activity	5' → 3' exonuclease activity
DNA polymerase I			
DNA polymerase III			
DNA polymerase II			