18/MHS07/044

PHA 210

Assignment: 1.HIGHLIGHT THE STEPS OF DNA REPLICATION

2.OUTLINE THE FUNCTIONS OF DNA REPLICATION ENZYMES.

Answer:

1. Initiation

* Elongation
* Termination.

**2.** Helicase unwinds the DNA double helix

• Gyrase relieves the buildup of torque during unwinding

• Primase builds an RNA primer on the parent strand to initiate DNA replication.

• DNA polymerase III is the main DNA synthesis enzyme

• DNA polymerase I replaces RNA primers with DNA

• Ligase fills in the gaps by joining the adjacent Okazaki fragments on the lagging strand of the DNA