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BCH 204 ASS.

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QUESTION: a. Highlight the steps of DNA replication

b. Outline the functions of DNA replication

ANSWER:

1. a. initiation

b. Elongation

c. Termination

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| ENZYME | FUNCTION |
| Topoisomerase | Helps relieve the stress on DNA when unwinding by causing breaks and then resealing the DNA. |
| DNA Helicase | Unwinds the double helix at replication fork.  Opens the DNA helix by breaking the hydrogen bonds between the nitrogenous bases. |
| Primase | Provides the starting point for DNA polymerase to begin synthesis of the new strand. |
| DNA polymerase | Synthesizes the new DNA strand; also proof reads and corrects some errors |
| DNA Ligase | Seals the gap between the Okazaki fragments to create one continuous DNA strand. |