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Department: Anatomy

College: Medicine And Health Sciences

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Question:

- **Highlight the steps of DNA replication**
 - i. Replication fork formation
 - ii. Primer binding
 - iii. Elongation
 - iv. Termination

- **Outline the functions of DNA replication enzymes.**
 - i. DNA helicase: separates double stranded DNA as it moves along the DNA.
 - ii. DNA primase: they act as templates for the starting point of DNA replication
 - iii. DNA polymerases: they synthesise new DNA molecules by adding nucleotides to leading and lagging DNA strands.
 - iv. Topoisomerase or DNA Gyrase: they unwind and rewind DNA strands to prevent the DNA from becoming tangled or supercoiled.
 - v. Exonucleases: group of enzymes that remove nucleotide bases from the end of a DNA chain.
 - vi. DNA ligase: joins DNA fragments together by forming phosphodiester bonds between nucleotides.