

2. Match the following enzymes and protein to its function.

Helicase

Single-strand
binding proteins

Topoisomerase

Primase

DNA polymerase III

DNA polymerase I

DNA ligase

 Synthesis RNA primer by adding RNA nucleotides using 3' end of the parental DNA strand as a template.

 Recognizes the 3' OH end of the RNA primer, and adds free complementary DNA nucleotides.

 Joins the Okazaki fragments by forming phosphodiester bonds to form continuous DNA strands.

 Unwind the double strand of DNA by breaking hydrogen bonds between the nitrogenous bases.

 Removes RNA primer and replaces it with DNA nucleotides.

 Bind to the unwound DNA strand, and prevent them for annealing.

 Relieves tension to the DNA molecule by nicking and cutting certain placed on the phosphate backbone.