

# School of Basic and Applied Sciences

BioScience

Summer Term - September 2023

Time : 3 Hours

Marks : 50

## SEM V - BBBMBT5005 - Molecular Therapeutics

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

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|-----|--|------------|
| 1.  | List the major functions of Helicases.   | K2 CO1 (2) |
| 2.  | Draw the structure of replication fork.  | K2 CO2 (2) |
| 3.  | Explore the major MCM proteins involved in the DNA replication.                        | K3 CO3 (2) |
| 4.  | List the major functions of Ter Protein.   | K3 CO4 (2) |
| 5.  | Define processivity.   | K4 CO5 (2) |
| 6.  | Organize the eukaryotic DNA Polymerase alpha and Epsilon.                              | K3 CO1 (5) |
| 7.  | Plan the Meselson and Stahl experiment for semiconservative replication.               | K3 CO2 (5) |
| 8.  | Compile the Molecular Structure, and Biomedical application of Insulin.                | K6 CO6 (6) |
| 9.  | Illustrate the function of various proteins involved in <i>E.Coli</i> DNA replication. | K4 CO3 (8) |
| 10. | Explain the structural and Functional role of <i>OriC</i> site of DNA.                 | K4 CO4 (8) |
| 11. | Explain the role of DNA repair system in cancer progression.                           | K5 CO5 (8) |