



RAN-2503001304022001 / 2503000504021111

B. Sc. Biotechnology (Se.-IV) Examination April - 2026

Basic of Molecular Biology

Time: 1 Hours]

[Total Marks: 25

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book.	Seat No.: <table border="1"> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> Student's Signature						

- Q. 1. Short Question/One-Word Answer (Any 5 out of 6) 05**
- Gene & Consensus sequences
 - Code degeneracy & Wobble position
 - Function of DNA polymerase I and Ribonuclease H
 - Name and function of two enzymes having role in translation
 - Splicing of eukaryotic mRNA
 - Why DNA replication is from 5' to 3' direction?
- Q. 2. Short Note/Brief Answer (Any 2 out of 3) 10**
- Discuss major steps of DNA replication and list out differences in prokaryotic and eukaryotic DNA replication.
 - What is Nucleosome and how it is assembled? How formation of 30 nm fibre occurs in the cell?
 - Explain initiation of transcription and mRNA synthesis in eukaryotes.
- Q. 3. Short Note/Brief Answer (Any 2 out of 3) 10**
- Mention detailed mechanism of elongation of translation in prokaryotes and eukaryotes.
 - Discuss details of termination of transcription and translation.
 - Give details of post translational modifications.