



BCH-003-1015031 Seat No. _____

B. Sc. (Biochemistry) (Sem. V) (CBCS) Examination

August – 2021

**Molecular Biology and Recombinant
Technology : Paper - 503**

Faculty Code : 003

Subject Code : 1015031

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

Instructions:

i) Answer any five of the following questions.

ii) All questions carry equal marks

1. Define sequencing of DNA and describe two methods for DNA sequencing [14]
2. a) Define replication and Write the chemical reaction involved in replication. [7]
b) Write a comparative account on Similarity and differences between replication in prokaryotes and eukaryotes. [7]
3. With well labeled diagrams explain Transcription in prokaryotes. [14]
4. Define and discuss splicing of mRNA with well labeled diagrams. [14]
5. Discuss different types of RNA and their role in protein synthesis. [14]
6. a) Write characteristic features of genetic code. [4]
b) Discuss Mechanism of translation in prokaryotes. [10]
7. Write a detailed note on different types of mutations. [14]
8. Discuss with well labeled diagrams about different systems of DNA repair. [14]
9. Write a brief discussion of gene cloning in bacteria. [14]
10. Discuss various applications of Recombinant DNA technology. [14]