



DII-003-012209

Seat No. _____

M. Sc. (Biochemistry) (Sem. II) (CBCS) Examination

May / June – 2015

CBC - 6 : Molecular Biology

Faculty Code : 003

Subject Code : 012209

Time : Hours]

[Total Marks : 70

- Que-1 Answer the following (Any seven out of Ten) 14
- 1) RNA Pol I and III
 - 2) PCR
 - 3) 5' Cap
 - 4) Reverse transcriptase
 - 5) rRNA
 - 6) Plasmid
 - 7) tRNA
 - 8) EF-Tu and EF-Ts
 - 9) DNA Pol ϵ
 - 10) IF-1 and IF-2
- Que-2 Answer the following (Any two out of three) 14
- 1) Explain in detail role of Dna A protein in replication
 - 2) Explain role of various sigma factors and initiation complex with RNA polymerase
 - 3) Give detail note on prokaryotic and eukaryotic DNA polymerases
- Que-3 Answer the following 14
- 1) Eukaryotic protein synthesis
 - 2) RNA processing
- OR**
- Que-3 Answer the following 14
- 1) Explain the DNA hybridization technique and its application
 - 2) Effect of antibiotics on prokaryotic translation
- Que-4 Answer the following (Any two out of three) 14
- 1) Differentiate the role and mechanism of Class I and Class II aminoacyl-tRNA synthetases
 - 2) Give a detail note on molecular markers
 - 3) Regulation of *trp* operon
- Que-5 Answer the following (Any two out of four) 14
- 1) Artificial vectors
 - 2) Cloning and Transformation.
 - 3) Western blotting for protein analysis
 - 4) Give a brief note on Friedrich Miescher's experiment.