

DISCIPLINE SPECIFIC ELECTIVE COURSE
BZO: E602 MOLECULAR BIOLOGY
(Credits: Theory-4)

SEMESTER –VI

Lectures: 60

Unit 1

Molecular Biology

Concept and scope of molecular biology

Unit 2

Nucleic Acid

Salient features of DNA and types of RNA (mRNA, rRNA and tRNA); Watson and Crick model of DNA.

Unit 3

DNA Replication

DNA replication in prokaryotes and eukaryotes – replication machinery and mechanisms, semi-conservative, bidirectional and semi-discontinuous replication

Unit 4

Transcription

Machinery and mechanism of transcription in prokaryotes and eukaryotes-RNA polymerases,

Unit 5

Translation

Genetic code, Degeneracy of the genetic code and Wobble hypothesis; Process of protein synthesis in prokaryotes: