

M.Sc. (Part-I) (Biotechnology) (NEP Pattern) Semester-I
NEP-94-1 / 01MSCBT04-1 - Paper-IV : Molecular Biology

P. Pages : 1

Time : Three Hours



GUG/W/23/15055

Max. Marks : 80

-
- Notes : 1. All questions are compulsory and carry marks as indicated.
2. Draw diagram wherever necessary.

1. Explain in detail the mechanism of DNA replication. **16**
OR
a) Describe the physical and chemical mutagens involved in mutation. **8**
b) Describe the semiconservative model of DNA replication. **8**
2. Describe in detail process of transcription. **16**
OR
a) Discuss three types of RNA polymerases. **8**
b) Write a note on Packaging of chromosomes. **8**
3. Describe Eukaryotic translation process in detail. **16**
OR
Write note on followings.
a) Deciphering the genetic code. **8**
b) Post translation modification of protein. **8**
4. Describe conjugation in bacteria in detail. **16**
OR
a) Give note on C-value paradox. **8**
b) Give note on extra chromosomal inheritance. **8**
5. Write notes on:
a) Write a note on SOS & BER DNA repair. **4**
b) Write note on 5' cap formation of RNA modification. **4**
c) Couple transcription translation. **4**
d) Transformation of gene. **4**
