

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

P. Pages : 1

Time : Three Hours



GUG/W/24/15055

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labelled diagrams wherever necessary.

1. Describe in detail mechanisms of DNA replication. 16

OR

- i) Discuss in detail semi-conservative replication. 8
ii) Describe in detail types of mutations. 8

2. Describe in detail prokaryotic transcription. 16

OR

- i) Give account on transcription regulation of lac operon. 8
ii) Discuss in detail modifications of RNA. 8

3. Describe in details mechanism of prokaryotic translation initiation, elongation and termination. 16

OR

- i) Give the account of post translation modification of protein. 8
ii) Differentiation between prokaryotic and eukaryotic translation. 8

4. Describe in detail Bacterial genetic recombination through transformation. 16

OR

- i) Discuss in detail extrachromosomal inheritance. 8
ii) Describe in detail types of genes. 8

5. Write in short-all compulsory. 4

- i) DNA repair through NER and BER. 4
ii) RNA polymerase. 4
iii) Characters of genetic Code. 4
iv) Salient features of the *E. Coli* genetic map. 4
