

M.Sc.(Microbiology) CBCS Pattern Semester-III
PSMBT-09 - Paper-I : Genetics and Molecular Biology

P. Pages : 1

Time : Three Hours



GUG/W/23/11291

Max. Marks : 80

Notes : 1. All the questions are compulsory and carry equal marks.

1. Describe in detail the process of replication in prokaryotes. 16

OR

a) What is DNA repair? Explain BER NER. 8

b) Explain termination of replication. 8

2. Describe the process of translation in detail. 16

OR

Write notes on:

a) Characteristics of genetic code. 8

b) Initiation, elongation and termination of mRNA synthesis. 8

3. Give the concept of operon. Explain in detail with suitable example. 16

OR

Write notes on:

a) Autogenous control of r-proteins. 8

b) P32 translational regulation. 8

4. Discuss the mechanism of Transformation with Griffith's experiment. 16

OR

Write note on:

a) Mapping bacteriophage gene by recombination analysis. 8

b) Preliminary concept of genetic recombination. 8

5. Write a short notes on:

a) Subunits of DNA Pol III. 4

b) RNA Editing. 4

c) Discuss Arabinose operon. 4

d) Retroposons. 4
