

FACULTY OF SCIENCE

M.Sc. II-Semester Examination, May / June 2017

Subject: Microbiology
Paper- I
Molecular Biology and Microbial Genetics

Note : Answer All Questions from part A and Part B Each Question
Carries (4) Marks in Part – A (12) Marks in Part - B

Time : 3 Hours

Max. Marks: 80

PART – A (4x8=32 Marks)
(Short Answer Type)

1. Z - DNA
2. Telomerase
3. RNA Polymerase
4. Arabinose Operon
5. Replica Plating
6. Composite Transposons
7. Competency
8. Zygotic Induction

PART – B (4x12=48 Marks)
(Essay Answer Type)

- 9.(a) Describe in detail mechanism of semi conservative replication.
OR
(b) Give an account on plasmid classification, properties and replication.
- 10.(a) Describe the translation process in prokaryotes.
OR
(b) Explain the gene regulation in Eukaryotes.
- 11.(a) Give an account on physical and chemical agents used for mutagenesis.
OR
(b) Describe the types of damage in DNA and its repair systems.
- 12.(a) Define HFR transfer. How HFR mapping is carried out?
OR
(b) Describe the molecular mechanism of Bacterial transformation and its applications.

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