

**M.Sc. II Semester Degree Examination, Sept./Oct. - 2024****MICROBIOLOGY****DSC : Microbial Genetics and Molecular Cell Biology****(NEP)**

Time : 3 Hours

Maximum Marks : 70

Note : Answer **any five** of the following questions with question **no.1 (Q1)** is **Compulsory**, each question carries **equal** marks.

1. Explain in detail about salient features of Genetic code and Wobble concept. **14**
2. Describe structure and organization of Bacterial and Eukaryotic genome. **14**
3. Explain briefly : **14**
 - (a) Biosynthesis of RNA in eukaryotes
 - (b) Repression of lac operon
4. Explain Central dogma. **14**
5. Short notes on : **14**
 - (a) Structure of Lambda phage and its life cycle
 - (b) Mitotic recombination in neurospora
6. Explain in detail : Fungal genetics **14**
7. Write a note on : **14**
 - (a) Involvement of ribosome in Translation
 - (b) DNA restriction and modification
8. Write short notes on : **14**
 - (a) Transfection and forced competence
 - (b) Semi conservative replication
 - (c) General characteristics of viral genome
 - (d) Yeast plasmids

