

M.Sc. (Micro) Semester - 4 (CBCS) Examination
May/June-2021 (OLD COURSE)
MOLECULAR PHYLOGENY AND DIVERSITY(CORE)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Q. 1 Answer the following (any seven) 14

1. Write the basic steps of PCR.
2. What are molecular Chronometers.
3. Mention the distinguish feature of clostridia.
4. Define characteristics of High G+C bacteria.
5. Define phylogenetic trees.
6. Classify the gamma proteobacteria
7. What is the importance of Bergey's manual of systematic bacteriology?
8. Define nucleic acid hybridization.
9. List out the applications of T-RFLP.
10. Explain the characteristic of lactobacilli.

Q. 2 Answer the following 14

1. Discuss isolation of nucleic acid and its role in analysis of diversity.
2. Write note on chronological distances.

Q.3 Answer the following 14

1. Explain the biotechnological importance of non-cultivable microbes.
2. Explain the molecular method of ARDRA.

Q.4 (A) Answer the following 14

1. Discuss the habitat and defense mechanisms of Clostridia.
2. Explain biotechnological application of actinobacteria.

Q.5 Answer the following 14

1. Write short note on Delta proteobacteria.
2. Explain the biotechnological importance of alpha-proteobacteria.
