

MASTER OF SCIENCE (MICROBIOLOGY) (CBCS - 2018 COURSE)

M.Sc. (Microbiology) Sem-IV : WINTER- 2022

SUBJECT : EXPLORING MICROBIAL DIVERSITY

Day : Tuesday

Time : 02:00 PM-05:00 PM

Date : 3/1/2023

W-18605-2022

Max. Marks : 30

N. B. :

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
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Q.1 Answer **ANY TWO** of the following : **(10)**

- a) Describe in brief Maxam and Gilbert's method of gene sequencing.
- b) Compare and contrast Systematics of Bacteriology and Determinative Bacteriology.
- c) Explain culture independent methods to promote growth of unculturable bacteria.

Q.2 Answer **ANY TWO** of the following : **(10)**

- a) Explain measures and Indices of Microbial Diversity.
- b) Explain the following methods for cultivation of unculturable bacteria
 - i) Co-culture
 - ii) Capillary based culturing
- c) Write significance of
 - i) Phenetics
 - ii) Phenogram

Q.3 Write short note on **ANY TWO** of the following : **(10)**

- a) T_m Value of DNA
- b) Short gun Sequencing
- c) Microbial Taxonomy

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