

B.Sc. Semester - 3 (CBCS) Examination
Nov/Dec. -2021 [NEW COURSE]
Microbiology-M301(Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Q.1

- A. Objective type questions. (04)
1. Define: Polyphasic taxonomy
 2. Explain: Species
 3. All bacterial cells are prokaryotic. (True/False)
 4. _____ scientist gave binomial nomenclature system.
- B. Answer in brief (Any 1 out of 2) (03)
1. Write short note on genomic fingerprinting.
 2. Explain: Nucleic acid hybridization.
- C. Write a note on (Any 1 out of 2) (07)
1. Phenetic, genotypic and phylogenetic classification.
 2. Microbial taxonomy and phylogeny based on Classical Characteristics.

Q.2

- A. Objective type questions. (04)
1. Define: Archaea.
 2. Bacillus is capsule forming phototrophic rods. (True/False)
 3. Explain: Halophiles
 4. Write two bacterial name of rhizobiaceae family.
- B. Answer in brief (Any 1 out of 2) (03)
1. Explain overview of extremophilic microorganisms.
 2. Give detail notes on mycobacteria.
- C. Write a note on (Any 1 out of 2) (07)
1. The various family of facultative anaerobes gram negative rods.
 2. Draw and explain the schematic representation of the lifecycle of *Bdellovibrio*.

Q.3

- A. Objective type questions. (04)
1. Define/Explain: Saprophytes.
 2. Chikungunya disease is transmitted by fly. (True/False)
 3. Explain: Lichens.
 4. Name any two the pigment found in algae.
- B. Answer in brief (Any 1 out of 2) (03)
1. Short note on morphology of protozoa.
 2. Economic importance of protozoa.
- C. Write a note on (Any 1 out of 2) (07)
1. Asexual reproduction in fungi.
 2. Asexual reproduction in a *Chlamydomonas* algae.

Q.4

- A. Objective type questions. (04)
1. Viruses are facultative parasites. (True/False)
 2. Who discovered the bacteriophages?
 3. Full form of HIV.
 4. What is Prions?
- B. Answer in brief (Any 1 out of 2) (03)
1. Cancer and viruses.
 2. Give the basic structural virus.
- C. Write a note on (Any 1 out of 2) (07)
1. Cultivation and Enumeration of Viruses
 2. Replication of bacterial viruses.

Q.5

- A. Objective type questions. (04)
1. Define: Biomagnification
 2. Full form of PHB
 3. What is Biofuels?
 4. Ozone is called the secondary air pollutant. (True/False)
- B. Answer in brief (Any 1 out of 2) (03)
1. Biodeterioration of paints
 2. Bioplastics
- C. Write a note on (Any 1 out of 2) (07)
1. Short note on: Types of Ex-situ bioremediation
 2. Bioleaching of metals
