

B.Sc. Semester - 3 (CBCS) Examination
Oct/Nov - 2022 (OLD COURSE)
MICRO-BIOLOGY (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. Answer the following. (Any One) (07)
1. Detail note on: Taxonomic ranks of microorganisms.
 2. Short note on: Microbial evolution and diversity.
- B. Answer the following. (Any One) (04)
1. Major characteristics used in taxonomy.
 2. Explain: Prokaryotic Phylogeny.
- C. Answer the following (Any Three) (03)
1. Define: Metagenomics.
 2. Explain: Taxonomy.
 3. All Bacteria are prokaryotic. (True/False)
 4. Define: Diversity.
 5. Whittaker gave five-kingdom classification. (True/False)

Q.2

- A. Answer the following. (Any One) (07)
1. Difference between archaea and Eubacteria.
 2. Extremophilic Microorganisms.
- B. Answer the following. (Any One) (04)
1. Write names of two gram negative and two gram positive microorganisms.
 2. Explain in short: Endospore forming rods
- C. Answer the following (Any Three) (03)
1. Define: Obligate anaerobes.
 2. *E. coli* is endospore forming rods. (True/False)
 3. *Mycobacterium* causes _____ disease.
 4. Explain: Thermophiles.
 5. Write two examples of phototrophic bacteria.

Q.3

- A. Answer the following. (Any One) (07)
1. Reproduction in Algae.
 2. Draw and explain: Classification of Fungi.
- B. Answer the following. (Any One) (04)
1. Short note on: Ultra- Structure of protozoa.
 2. Economic importance of Algae.
- C. Answer the following (Any Three) (03)
1. Define: Algae.
 2. Dengue disease is transmitted by mosquitoes. (True/False)
 3. Explain: Eutrophication.
 4. Agar Agar is produced from Red algae. (True/False)
 5. Write two example of protozoa.

Q.4

- A. Answer the following. (Any One) (07)
1. Detail notes on: Lysogenic life cycle Cycle.
 2. Explain in detail: Lytic cycle of T4 phage.
- B. Answer the following. (Any One) (04)
1. Write the method for Enumeration of viruses.
 2. Give the Classification of animal virus.
- C. Answer the following (Any Three) (03)
1. Define: Viruses.
 2. _____ filter is used for filtration for virus?
 3. Full form of HIV.
 4. What is Prions?
 5. Write two Mode of transmission of Animal viruses.

Q.5

- A. Answer the following. (Any One) (07)
1. Short note on: Types of *Ex-situ* bioremediation.
 2. Explain in detail: Biomagnification of pesticides.
- B. Answer the following. (Any One) (04)
1. Biodeterioration of paints.
 2. Short note on: Bioplastics.
- C. Answer the following (Any Three) (03)
1. Define: Biomagnification.
 2. Full form of PHB.
 3. Explain: Biofuels.
 4. What is Air Pollution?
 5. Algae are actively involved in biodeterioration of metal. (True/False)
