

B.Sc. Semester - 3 (CBCS) Examination
Nov/Dec. -2021 (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. Write a detailed note on molecular characteristics used in Taxonomy.
 2. Describe various classification systems.
- B. Answer the following. (Any One) (04)
1. Write short note on metagenomics.
 2. Explain: Phylogenetic Tree.
- C. Answer the following (Any Three) (03)
1. Define: Taxonomy
 2. Explain: Nomenclature
 3. All single cell organisms are procaryotic. (True/False)
 4. Define: Biovars
 5. _____ scientist gave five-kingdom classification.

Q.2

- A. Answer the following. (Any One) (07)
1. Difference between archaea and bacteria
 2. Give detail notes on asporogenous rods.
- B. Answer the following. (Any One) (04)
1. Write names of four gram negative and four gram positive microorganisms.
 2. Explain in short: Halophiles
- C. Answer the following (Any Three) (03)
1. Define: Facultative anaerobes.
 2. Bacillus is endospore forming rods. (True/False)
 3. *Clostridium botulinum* causes a severe food poisoning known as _____.
 4. Explain: Barophile
 5. Write two names of sulfur reducing bacteria.

Q.3

- A. Answer the following. (Any One) (07)
1. Sexual reproduction in fungi.
 2. Draw and explain: Ultra-structure of algae.
- B. Answer the following. (Any One) (04)
1. Short note on protozoa.
 2. Economic importance of fungi.
- C. Answer the following (Any Three) (03)
1. Define: Fungi.
 2. Malaria disease is transmitted by fly. (True/False)
 3. Explain: Eutrophication.
 4. Red algae *Gelidium* is useful for _____ production.
 5. Explain: Pseudopodia

Q.4

- A. Answer the following. (Any One) (07)
1. Detail notes on: Lytic Cycle.
 2. Explain in detail: Lysogenic life cycle of lambda phage
- B. Answer the following. (Any One) (04)
1. Write the technique for cultivation of animal viruses using embryonated eggs.
 2. Give the basic structural features of TMV.

- C. Answer the following (Any Three) (03)
1. Define: Viruses
 2. Who invented the porcelain bacterial filter for virus?
 3. Full form of AIDS.
 4. What is viroids?
 5. Write two Mode of transmission of plant viruses.

Q.5

- A. Answer the following. (Any One) (07)

1. Short note on: Types of *in-situ* bioremediation
2. Explain in detail: Biological Magnification

- B. Answer the following. (Any One) (04)

1. Biodeterioration of paper
2. Short note on: Biofuel

- C. Answer the following (Any Three) (03)

1. Define: Biodegradation
2. Full form of PHA
3. Give the three names of greenhouse gases.
4. What is bioleaching?
5. Protozoa are actively involved in biodeterioration of wood. (True/False)
