

B.Sc. Semester - 3 (CBCS) Examination
Oct/Nov - 2023 [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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- Que.1(A) Objective type questions. (04)
1. Virus are prokaryotic. (True/False)
 2. _____ scientist gave binomial nomenclature system.
 3. Write the correct order of taxonomic groups from lower to higher rank.
 4. What are ribosomes composed of _____. (Only RNA, Proteins and RNA)
- Que.1(B) Answer in brief (Any 1 out of 2) (03)
1. Fundamentals of Microbial Taxonomy.
 2. Provide an explanation of microbial diversity.
- Que.1(C) Write a note on (Any 1 out of 2) (07)
1. Classification Based on Genotype and Phylogeny.
 2. In-Depth Discussion of Nucleic Acid Hybridization.
- Que.2(A) Objective type questions. (04)
1. Provide an explanation of acidophiles.
 2. Provide a definition for obligate anaerobes.
 3. *E. Coli* is gram negative bacteria. (True/False)
 4. Write two bacterial names of halophilic bacteria.
- Que.2(B) Answer in brief (Any 1 out of 2) (03)
1. Explain overview of Anaerobic cocci.
 2. Provide detailed information on mycobacteria.
- Que.2(C) Write a note on (Any 1 out of 2) (07)
1. Microorganisms Thriving in Extreme Environments.
 2. Create and elucidate a schematic representation depicting the life cycle of *Bdellovibrio*.
- Que.3(A) Objective type questions. (04)
1. Elaborate on Hyphae.
 2. Define: Fruiting Body.
 3. Spirulina is example of algae. (True/False)
 4. Name any two economical important of protozoa.
- Que.3(B) Answer in brief (Any 1 out of 2) (03)
1. Briefly describe the morphology of fungi.
 2. Explain the Economic Significance of Algae.
- Que.3(C) Write a note on (Any 1 out of 2) (07)
1. Provide a comprehensive explanation of reproduction in protozoa.
 2. A Description of Asexual Reproduction in *Chlamydomonas* algae.
- Que.4(A) Objective type questions. (04)
1. What is Virion?
 2. Define what a pro phage is?
 3. Write two disease name cause by virus.
 4. TMV virus is Human virus. (True/False)

- Que.4(B) Answer in brief (Any 1 out of 2) (03)
1. Explain the Enumeration of viruses.
 2. Provide an overview of the basic structure of viruses.
- Que.4(C) Write a note on (Any 1 out of 2) (07)
1. Briefly describe the replication of lytic phage.
 2. Describe the life cycle of the lysogenic phage.
- Que.5(A) Objective type questions. (04)
1. What does PHA stand for?
 2. Provide a definition for Biomagnification.
 3. Ethanol is major gas for Biogas. (True/False)
 4. CO₂ is called the _____ type of air pollutant. (Primary, Secondary)
- Que.5(B) Answer in brief (Any 1 out of 2) (03)
1. Explain Bioplastics.
 2. Elaborate on the deterioration of Paper due to biological processes.
- Que.5(C) Write a note on (Any 1 out of 2) (07)
1. Briefly discuss on Biogas.
 2. Describe the various methods for Air Sanitation.
