



BBD-003-001320

Seat No. _____

B. Sc. (Sem. III) (CBCS) Examination

June / July – 2021

MB - 301 : Microbial Diversity

(Old Course)

Faculty Code : 003

Subject Code : 001320

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All Questions are compulsory
(2) Figures on right side indicate total marks
(3) Draw the figure wherever necessary

1 Answer the following : 20

- (1) Who proposed Binomial system for nomenclature?
- (2) Enlist Whittaker's five kingdoms.
- (3) Define : Phylogenetic tree
- (4) The complete data of bacteria classified and identified till today is available in _____.
- (5) Cell wall of the genus Mycobacterium contains _____ acids.
- (6) What are Spirochetes?
- (7) Give any two examples of organisms belongs to Enterobacteriaceae family?
- (8) Bacillus and clostridium are Gram positive bacteria characterized by their ability to form _____
- (9) What are sheathed bacteria?
- (10) What are Methanogens?
- (11) _____ are organisms that require high salt concentration.
- (12) Give any three habitats of thermophiles.

- (13) What are Rhizoids?
- (14) Agar- Agar, carrageenan is obtained from _____
- (15) Define : Fungi
- (16) Name any two disease caused by protozoa.
- (17) Define : virus
- (18) What is prophage?
- (19) Give an example of bacteriophage.
- (20) Lytic viruses are also known as _____

2 (A) Answer Specifically : (Any Three) 6

- (1) Define : Molecular chronometers
- (2) Give two examples of Gram positive cocci with their importance.
- (3) What are barophiles?
- (4) What are Haustoria?
- (5) What are prions?
- (6) What are conidiospores and sporangiospores?

(B) Answer in brief : (Any Three) 9

- (1) What is endosymbiosis? Explain evolution of microorganisms.
- (2) Write about Spirochetes.
- (3) Write a note on thermophiles.
- (4) What are Oogamy, Anisogamy and isogamy?
- (5) Explain lysogenic cycle with suitable example.
- (6) Write about actinomycetes.

(C) Write Short notes on : (Any Two) 10

- (1) Write a note on numerical taxonomy.
- (2) Discuss: Endospore forming bacteria
- (3) Write a note on: budding bacteria
- (4) Write a note on: Economic importance of fungi
- (5) Discuss in detail Lytic cycle.

- 3 (A) Answer Specifically : (Any Three) 6**
- (1) What are stromatolites?
 - (2) Name two species of Bacillus with their importance.
 - (3) Name two species of Rickettsia.
 - (4) Write about locomotory organelles of protozoa.
 - (5) Structure of TMV.
 - (6) Write in brief Species
- (B) Answer in brief : (Any Three) 9**
- (1) Explain taxonomical ranks.
 - (2) Write about Pseudomonas.
 - (3) Write about Methanogens.
 - (4) Explain reproduction in Protozoa.
 - (5) Enlist the methods of virus enumeration and discuss any one method.
 - (6) Write about general characters of fungi.
- (C) Write Short notes on : (Any Two) 10**
- (1) Discuss major characteristics used in taxonomy.
 - (2) Discuss in detail: Photosynthetic bacteria
 - (3) Write about Chlamydia.
 - (4) Discuss in detail ultrastructure of algal cell.
 - (5) Describe : Cultivation of Animal virus
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