

B.Sc. Semester - 3 (CBCS) Examination
December. -2020 [NEW COURSE]
Microbiology-M301(Core)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figure to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Q.1 (A). Answer the following (any One out of two) 7

1. Discuss taxonomic rank in detail.
2. Explain the importance of Phylogeny and describe phylogenetic groups of eukaryotes.

Q.1(B). Answer in brief (any One out of two) 4

1. Discuss the metagenomics.
2. Define term “microbial taxonomy” and explain in brief.

Q.1 (C). Answer in detail (Any three out of five) 3

1. Explain contribution of Carl Woese in microbiology taxonomy.
2. What is protista?
3. Define the term microbial evaluation.
4. What is phylogenic tree?
5. Define the term Domain?

Q.2 (A). Answer the following (any One out of two) 7

1. Write a note on extremophiles.
2. Discuss the Phototrophic bacteria in detail.

Q.2 (B). Answer in brief (any One out of two) 4

1. Mention the difference between Archaea and Eubacteria.
2. Discuss actinomycetes and give its industrial importance.

Q.2 (C). Answer in detail (Any three out of five) 3

1. Define characteristics of Facultative anaerobes.
2. What do you mean by Microaerophilic?
3. Explain unique characteristics of Mycobacteria.
4. Give two examples of Endospore forming microorganism.
5. Give two examples of Sulfate reducers.

Q.3 (A). Answer the following (Any one out of two) 7

1. Write a note on classification of fungi.
2. Describe the reproduction system of algae.

Q.3 (B). Answer in brief (Any one out of two) 4

1. Explain Economic importance of fungi.
2. Discuss Economic importance of Protozoa in brief.

- Q.3 (C). Answer in detail (Any three out of five)** **3**
1. What is cell composition of algae?
 2. Spirulina is the example of algae (True/False).
 3. Explain the general characteristic of fungi.
 4. What is oospore?
 5. What is the role of Protozoa in environment?
- Q.4 (A). Answer the following (Any one out of two)** **7**
1. Write a note on lysogenic cycle of lambda phage.
 2. Explain Economic importance of TMV.
- Q.4 (B). Answer in brief (Any one out of two)** **4**
1. Explain viroid in brief.
 2. Discuss lytic life cycle.
- Q.4 (C). Answer in detail (Any three out of five)** **3**
1. What are Prions?
 2. Give an example of animal virus.
 3. What is Phage Plaque?
 4. DNA is genetic material in tobacco mosaic virus (True/False).
 5. What is Cytocidal effects?
- Q.5 (A). Answer the following (Any one out of two)** **7**
1. Explain biodeterioration of metals and its control.
 2. Discuss Microbial enhanced oil recovery in detail.
- Q.5 (B). Answer in brief (Any one out of two)** **4**
1. Write a note on Bioplastics.
 2. Discuss pesticide bioremediation in detail.
- Q.5 (C). Answer in detail (Any three out of five)** **3**
1. Define the term bioremediation.
 2. Define biomagnification.
 3. What is Biofuel?
 4. Explain microbial air pollution in brief.
 5. Which are the organisms responsible for metal bioleaching?
