647510 **BSc3MicC0301** **Seat No :_____**

B.Sc. Semester - 3 (*CBCS*) Examination
December. -2020 [OLD COURSE]
MICRO-BIOLOGY (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.

Q.1 (A). Answer the following (any One out of two) **7**

1. Discuss phylogenic tree in detail.
2. Explain taxonomic rank.

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

1. Write a note on microbial evolution.
2. Enlist major characteristics taxonomy.

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

1. Define: biodiversity.
2. Explain universal phylogeny tree.
3. Define the term metagenomics.
4. Who give the three kingdom classification system?
5. Define Phylogenetic clarification.

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

1. Explain phototrophic bacteria.
2. Discuss the general features of facultative anaerobes.

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

1. Describe the general features of Actinomycetes.
2. Write a note on Phototrophic bacteria.

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

1. Give two examples of Sulfate reducers.
2. Define extremophilic organism.
3. What do you mean by Microaerophilic?
4. Explain characteristics of archaea.
5. Why organism produce spore? explain in brief.

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

1. Discuss economic importance of fungi.
2. Explain the economic importance of algae.

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

1. Explain general characteristics of protozoa.
2. Discuss the major divisions of fungi.

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

1. Penicillin is invented by Alexander Fleming (True/False).
2. What is heterocyst?
3. Explain the role of Protozoa in environmental pollution.
4. What is cell wall composition of algae?
5. Photosynthesis synthesis is the process by which light energy is converted to ……energy?

Q.4 (A). Answer the following (Any one out of two) **7**

1. Describe the lysogenic cycle in detail with suitable diagram.
2. Explain Lytic life cycle.

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

1. Write a short note on cultivation and enumeration of viruses.
2. Discuss replication of TMV.

Q.4 (C). Answer in detail (Any three out of five) **3**

1. What is genetic material of tobacco mosaic virus?
2. Give an example of animal virus.
3. Define Prions.
4. Define characteristic of retrovirus.
5. Give an example of viroid.

Q.5 (A). Answer the following (Any one out of two) **7**

1. Describe microbial enhanced oil recovery.
2. Explain the biomagnification of pesticides.

Q.5 (B). Answer in brief (Any one out of two) **4**

1. Write a note on microbial air pollution.
2. Discuss biodegradation of pesticide.

Q.5 (C). Answer in detail (Any three out of five) **3**

1. What is Bioleaching?
2. Define Bioremediation.
3. Define the term sanitation.
4. What are organic pollutants?
5. How biologically deteriorates the wood? Define.

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