

B.Sc. Semester - 4 (CBCS) Examination
March/April-2023 [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 questions. (Any One) (07)**
1. Write detail note on neutral and Beneficial microbial interactions.
 2. Explain in detail: Nitrogen fixation.
- Q.1(B) Answer the following question. (Any One) (04)**
1. Explain Symbiotic nitrogen fixating microorganism as biofertilizers.
 2. Draw well labelled diagram of Winogradsky's column
- Q.1(C) Answer the following question. (Any Three) (03)**
1. Define: Soil
 2. Write any two name of organism act as biopesticide.
 3. Write two name of Nitrogen fixing microorganism.
 4. Explain: Parasites
 5. Write any two names of plant disease.
- Q.2(A) Answer the following questions. (Any One) (07)**
1. Write short note on food born disease.
 2. General principles & methods of food preservation.
- Q.2(B) Answer the following question. (Any One) (04)**
1. Single Cell Protein as food.
 2. Explain: Microbial spoilage of foods.
- Q.2(C) Answer the following question. (Any Three) (03)**
1. Write any two-chemical act as food preservation.
 2. *C. botulinum* produced _____ Toxin.
 3. What is AGMark.
 4. Write the any of name of organism used for Sauerkraut production.
 5. Define: Intoxication.
- Q.3(A) Answer the following questions. (Any One) (07)**
1. Detailed note on various types of microorganisms is present in milk.
 2. Explain in detail: Principles & methods of preservation of milk.
- Q.3(B) Answer the following question. (Any One) (04)**
1. Cheese Production.
 2. Yogurt Production.

- Q.3(C) Answer the following question. (Any Three) (03)**
1. The yoghurt is made from _____ organism.
 2. Give the full form MBRT
 3. Define: Pasteurization.
 4. Write any two-name normal flora of milk.
 5. Milk having mycobacterium is consider as good quality. (True/False)
- Q.4(A) Answer the following questions. (Any One) (07)**
1. Explain water purification in detail.
 2. Short note on Solid waste processing.
- Q.4(B) Answer the following question. (Any One) (04)**
1. Explain Bacteriological analysis & Sampling techniques of water.
 2. Trickling Filter.
- Q.4(C) Answer the following question. (Any Three) (03)**
1. Difference between potable water and polluted water.
 2. Define: Coliforms
 3. Write the full form of COD.
 4. What is the role of Composting?
 5. Write the full name of MPN.
- Q.5(A) Answer the following questions. (Any One) (07)**
1. Write the various process of total quality management.
 2. How to check of pharmaceutical products for sterility?
- Q.5(B) Answer the following question. (Any One) (04)**
1. GLP in pharmaceutical industries.
 2. Quality assurance and quality management in pharmaceuticals.
- Q.5(C) Answer the following question. (Any Three) (03)**
1. Define: pharmacopoeia.
 2. Explain: Sterility testing.
 3. Spore forming microorganism consider as good bacteria in pharma product. (True/False)
 4. Give the full form of GMP.
 5. Give the full form of WHO.
