

**B.Sc. Semester - 4 (CBCS) Examination**  
**March/April-2023 [NEW COURSE]**  
**Microbiology-Mi401(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. (04)**

1. Define: Rhizosphere
2. Write any two name of organism act as biocontrol.
3. Write two name of symbiotic Nitrogen fixing microorganisms.
4. Write any two names of plant disease with causative microorganisms.

**Q.1(B) Answer the following question. (Any One) (03)**

1. Explain: Microbial flora of soil.
2. Give the basic note on: Plant mycology, Plant bacteriology and Plant virology.

**Q.1(C) Answer the following question. (Any One) (07)**

1. Write detail note on beneficial and harmful microbial interactions.
2. Role of various microorganism to fix atmospheric nitrogen.

**Q.2(A) Answer the following questions. (04)**

1. Define: Food borne infection.
2. Write the scientific name of common mushroom.
3. Protozoa have high vitamin content. (True/False)
4. Write the name of organism used for bread fermentation.

**Q.2(B) Answer the following question. (Any One) (03)**

1. Short note on: Various types of mushrooms used as food.
2. Fermentation of Sauerkraut.

**Q.2(C) Answer the following question. (Any One) (07)**

1. Microbiological examination of food.
2. Microbial flora of fresh food.

**Q.3(A) Answer the following questions. (04)**

1. Define: Fermentation.
2. Give the full form SPC.
3. Write any two-name probiotics.
4. Write the nutrition value of milk.

- Q.3(B) Answer the following question. (Any One) (03)**
1. Spoilage of milk.
  2. Kefir Production.
- Q.3(C) Answer the following question. (Any One) (07)**
1. Microbial analysis of milk.
  2. Various methods for preservation of milk.
- Q.4(A) Answer the following questions. (04)**
1. Define: Potable water.
  2. Explain: Activated sludge.
  3. Write the full form of BOD.
  4. Write the any two names of organisms consider as coliforms.
- Q.4(B) Answer the following question. (Any One) (03)**
1. Anaerobic Sludge digestion.
  2. Filtration use of Sand filters.
- Q.4(C) Answer the following question. (Any One) (07)**
1. Explain: Waste water treatment.
  2. Microorganisms other than Coliforms.
- Q.5(A) Answer the following questions. (04)**
1. Give the full name of ISO.
  2. Give the full form of GLP.
  3. Define: pharmaceutical microbiology.
  4. Contamination of fungi in pharma products consider as sterile. (True/False)
- Q.5(B) Answer the following question. (Any One) (03)**
1. GMP in pharmaceutical industries.
  2. Total Quality Management.
- Q.5(C) Answer the following question. (Any One) (07)**
1. Quality assurance and quality management in pharmaceuticals.
  2. Sterility testing of pharmaceutical products.

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