

**Bachelor of Science (B.Sc.) Semester-IV (C.B.S.) Examination**

**MICROBIOLOGY (Applied Microbiology)**

**Paper—II**

Time : Three Hours]

[Maximum Marks : 50]

**N.B. :—** (1) **ALL** questions are compulsory and carry equal marks.

(2) Draw suitable diagrams wherever necessary.

1. Describe various methods of chlorination.

10

**OR**

Describe water treatment process using rapid sand filter.

10

2. What is meant by 'fixed film' process ? Discuss the working of trickling filter.

10

**OR**

Describe the following :

(i) Activated sludge

(ii) Sludge digester.

3. (A) Describe Anderson air sampler with its merits and demerits.

(B) Discuss microbial leaching of copper.

10

5

5

(C) Explain the role of *Bacillus thuringiensis* as biopesticides.

5

(D) Give an account of phosphate solubilising bacteria as Biofertilizer.

5

4. (A) Give the flow sheet diagram of canning process.

2½

(B) Discuss soft rots in spoilage of vegetables.

2½

(C) Write a note on chemical preservation of foods.

2½

(D) Differentiate between quick freezing and slow freezing.

2½

**OR**

(E) Describe pasteurization treatment given to various types of foods.	2½
(F) Discuss staphylococcal food intoxication.	2½
(G) Explain the effect of sugar and salt on microbial growth.	2½
(H) Discuss Salmonellosis.	2½
5. Solve any <b>ten</b> questions :	
(i) What are faecal streptococci ?	1
(ii) What is false presumptive test ?	1
(iii) Name any two media used for confirmation of E. Coli.	1
(iv) Define B.O.D.	1
(v) Give example of double storey tank used in sewage treatment.	1
(vi) Name the organisms found in symbiotic association in oxidation ponds.	1
(vii) What are Bioaerosols ?	1
(viii) What are mycorrhiza ?	1
(ix) What is meant by impingement ?	1
(x) What is neurotoxin ?	1
(xi) What are food additives ?	1
(xii) What is the difference between food intoxication and food infection ?	1