

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 well labelled diagrams and give examples wherever necessary.

1. (a) Give the significance of Bacteriological analysis of Water. 2½
- (b) Explain Presumptive test of MPN technique for coliforms. 2½
- (c) Draw well labelled diagram of slow sand filter. 2½
- (d) Explain break point chlorination process. 2½

OR

- (e) Write a note on indicators of excretal pollution ? 2½
- (f) Explain the principle of Indole Test. 2½
- (g) Draw well labelled diagram of rapid sand filter. 2½
- (h) Give the differences between faecal and non-faecal coliforms. 2½
2. (a) Describe Physical, chemical and biological characteristics of waste water. 5
- (b) Describe trickling filter method of Sewage treatment. 5

OR

- (c) Describe RBC with suitable diagram. 5
- (d) Describe structure and working of septic tank. 5
3. Discuss in detail-biopesticides and biofertilizers. 10

OR

- Describe microbial leaching of copper and uranium. 10
4. Describe canning process. 10

OR

- Describe various food borne infections in detail. 10
5. Solve any ten questions :—
- (i) What is the role of biological film in SSF ? 1
- (ii) Why bottle containing Sodium thiosulphate is used for collecting chlorinated water sample ? 1
- (iii) Define superchlorination. 1

- (iv) Why 'COD' values are usually greater than 'BOD' values ? 1
- (v) What is an oxidation Pond ? 1
- (vi) Give limitations of Imhoff tank. 1
- (vii) What is the drawback of Settling Plate technique of air analysis ? 1
- (viii) What is an Impaction ? 1
- (ix) What is PSB ? 1
- (x) What is ultra pasteurization ? 1
- (xi) Give the names of any two chemical preservatives. 1
- (xii) Name any two bacteria causing food intoxication. 1

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