2023

M.Sc.

4th Semester Examination

MICROBIOLOGY

PAPER : MCB-493.1

(Practical)

(Environmental Microbiology)

Full Marks : 25

Time : 6 hours

The figures in the right-hand margin indicate marks.

Answer **all** questions.

1. Determine the MPN value of the supplied water sample (A or B).
(Principle 2, Requirements – 3, Result – 3, Comment – 2). 10

(OR)

Perform the alkaline phosphatase test and comment on the status of the supplied milk samples.
(Principle : 2, Working : 3, Result : 3, Comment : 2) 10

2. Determine the amount of dissolved oxygen in the supplied water sample (C or D). (Requirement - 2, Result 2. Comment – 1). 5

(OR)

Perform the citrate test of the supplied bacterial culture.

(Working : 2, Result and comment : 3). 5

3. Laboratory Notebook. 2

4. Viva-voce. 3

5. Internal assessment. 5

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2023

M.Sc.

4th Semester Examination

MICROBIOLOGY

PAPER : MCB-493.2

(Practical)

(Bioprocess Technology)

Full Marks : 25

Time : 6 hours

The figures in the right-hand margin indicate marks.

Answer **all** questions.

1. Determine the lactic acid content present in the supplied curd sample.

(OR)

Enumerate the bacterial load in the supplied curd sample.

(Principle : 2, Working : 3, Result and comment : 2). 7

2. Compare the level of alpha amylase present in the culture of submerged and soild state fermentation.

   (Procedure-3. Working : 2. Result and comment : 3). 8

3. Laboratory Notebook. 2

4. Viva-voce. 3

[Internal Assessment : 5 Marks]

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