



"Dissemination of Education for Knowledge, Science and Culture"  
- Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

## **Vivekanand College, Kolhapur (Empowered Autonomous)**



### **Department of Microbiology**

#### **Water analysis Report 2024-2025**

- **Introduction:**

The department of microbiology is pleased to present this annual water analysis report for 2024-2025. This report summarizes the result of water quality testing conducted on 4 samples collected from college office, Sanstha office, canteen and library water filters during calendar year 2024-2025. The purpose of this analysis is to ensure the safety and quality of drinking water supplied to institution and to comply with regulatory requirements

- **Objectives:**

1. Monitor water quality for microbiological contaminants.
2. Identify potential source of contaminants.
3. Evaluates the effectiveness of existing water treatment and distribution system.
4. Provide recommendation for improvement.

#### **1. Sample Information:**

- **Sample Type:** Drinking Water
- **Sampling Date:** 05/07/2024
- **Sampling Location:** College office, Sanstha office, Canteen and Hostel water filters
- **Received by:** Department of microbiology



### Parameters Analyzed:

This Report Present Results for the faecal indicator: Total Coliform, Faecal coliform, *E. coli* etc

#### 2. MPN Test:

Test	Sample Dilution	No. of Positive Tubes	Most Probable Number (MPN/100 ml)
CANTEEN	10 ml	5	2400
	1 ml	5	
	0.1 ml	5	
SANSTHA OFFICE	10 ml	0	2
	1 ml	1	
	0.1 ml	0	
COLLEGE OFFICE	10 ml	0	<2
	1 ml	0	
	0.1 ml	0	
HOSTEL	10 ml	0	2
	1 ml	0	
	0.1 ml	1	



### 3. Confirmed test

Test	Selective Media	Observations	Result
CANTEEN	EMB agar	Typical, nucleated colonies with metallic sheen	Positive  <b>Gram nature:</b> Gram Negative short rods
	Endo agar	Red colonies with metallic green sheen	<b>Motility:</b> Motile

### 4. Complete test

Test	Media used	Observations	Result
CANTEEN	Lactose Broth tube	Acid and gas production	Coliforms present
	Nutrient Agar	Gram Negative non-spore forming rods	



### Result:

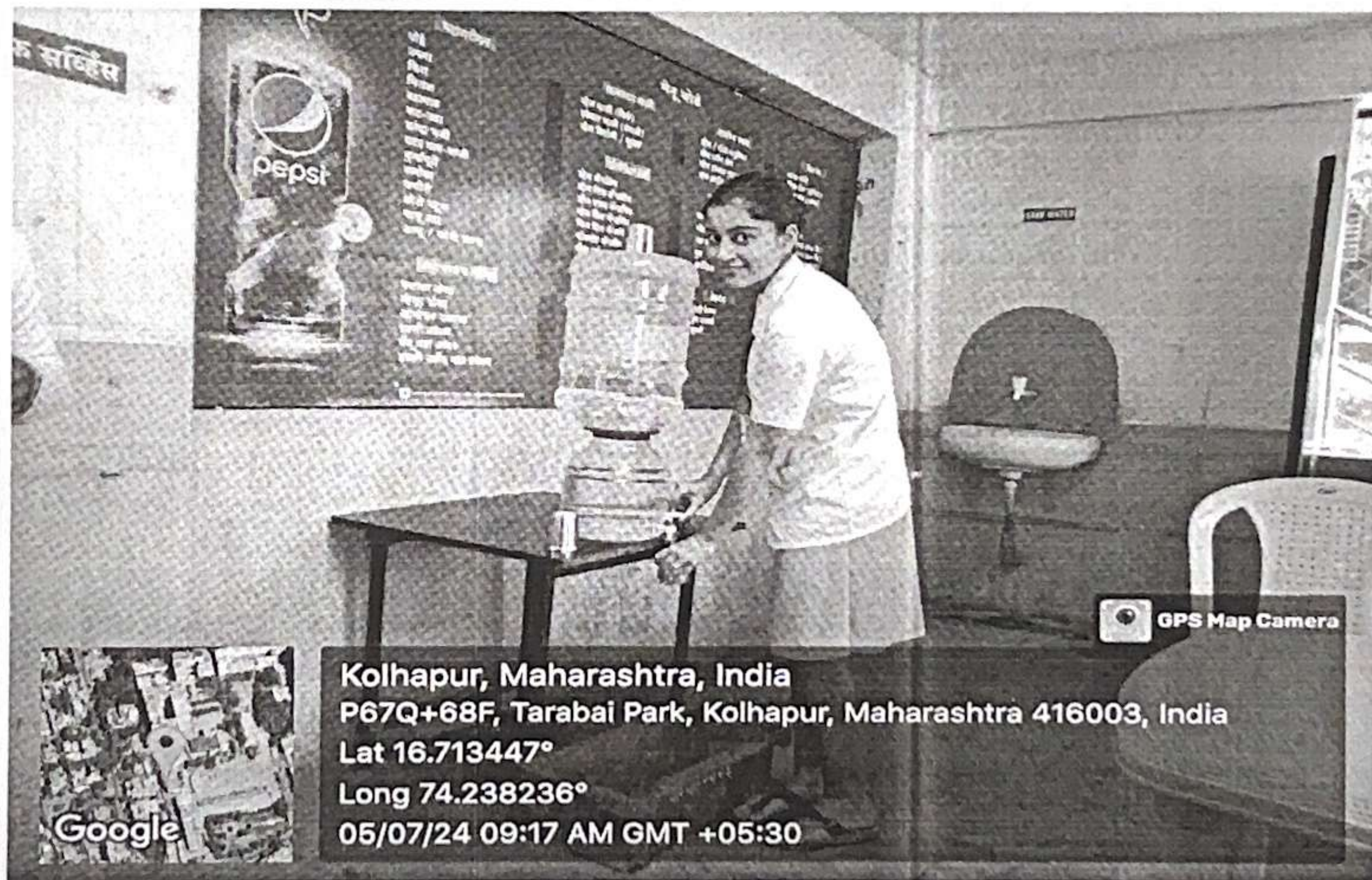
The estimated MPN for fecal coliforms from samples collected from the water filters of Sanstha office, college office, hostel showed safe levels of fecal coliforms.

Whereas MPN for fecal coliforms from samples collected from the water filters of Canteen showed unsafe levels of fecal coliforms.

As the fecal coliforms exceed the permissible limit of, it indicates contamination from fecal matter, suggesting a higher risk of pathogenic organisms.

**Action taken:** According to the water analysis result given by the Department of Microbiology under the principal's action satisfactory actions were taken regarding the water treatment procedures and water filters were installed.

### Photos:

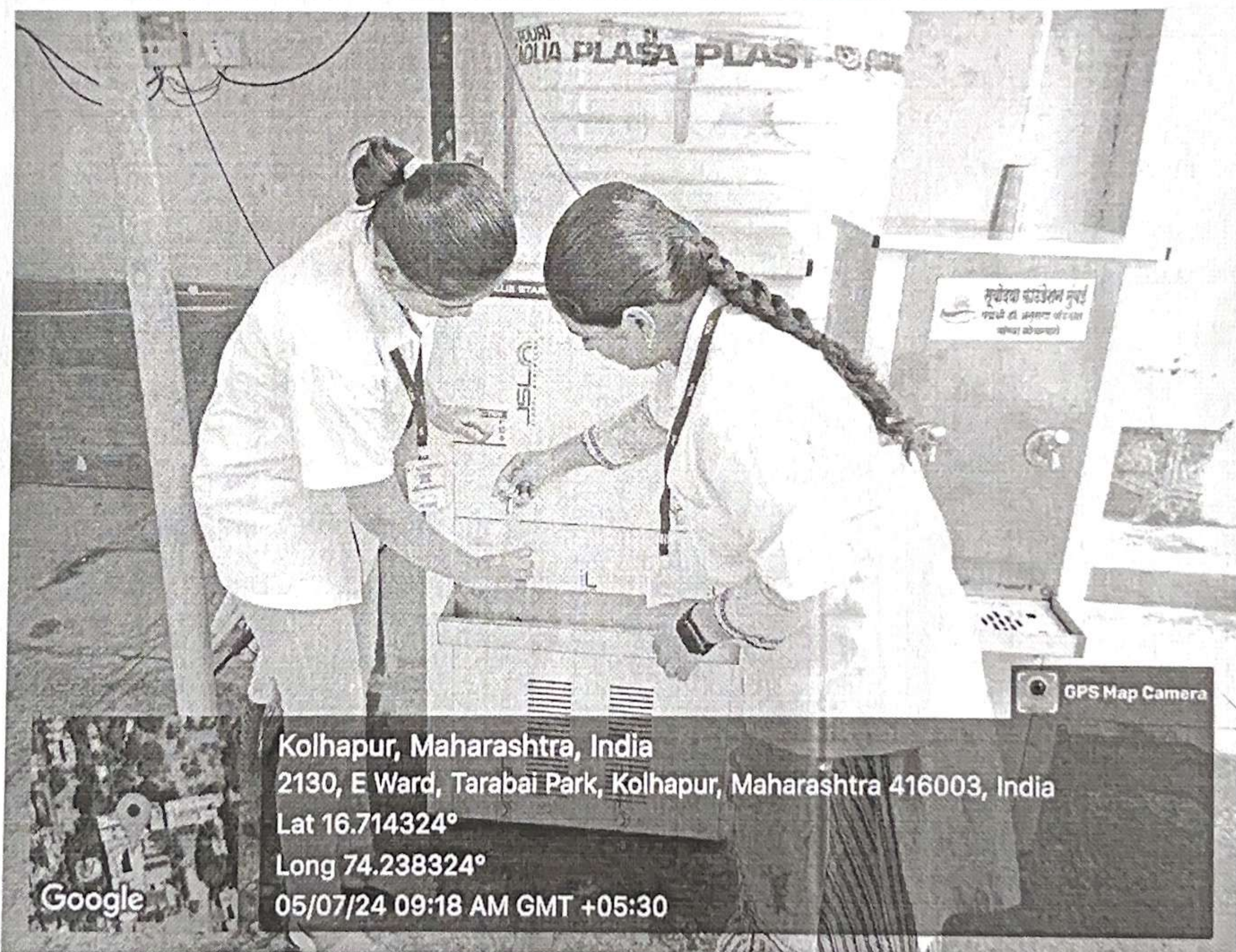


Sample Collection from Canteen





Sample Collection from Canteen

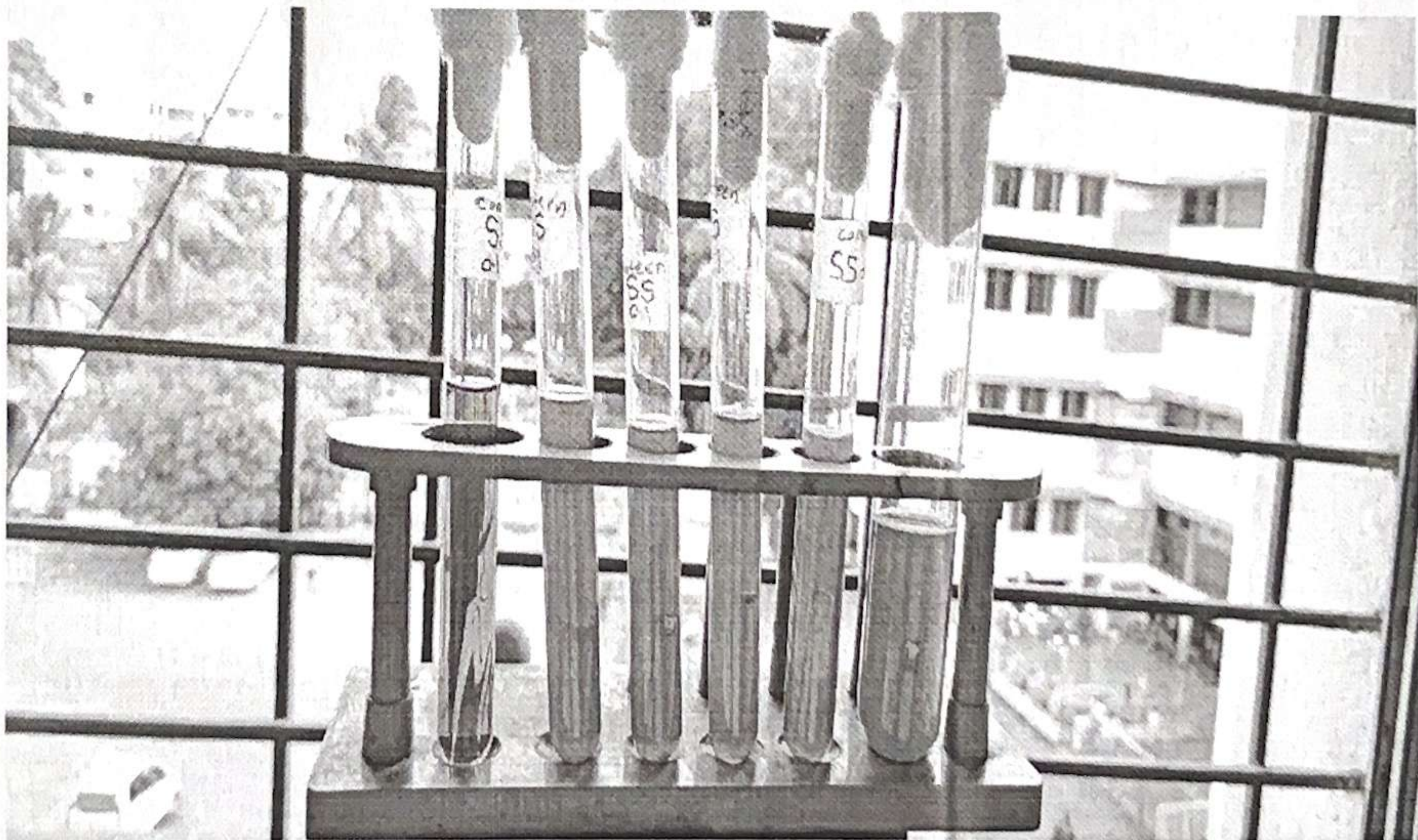


Sample Collection from Hostel





Sample Collection from Sanstha Office

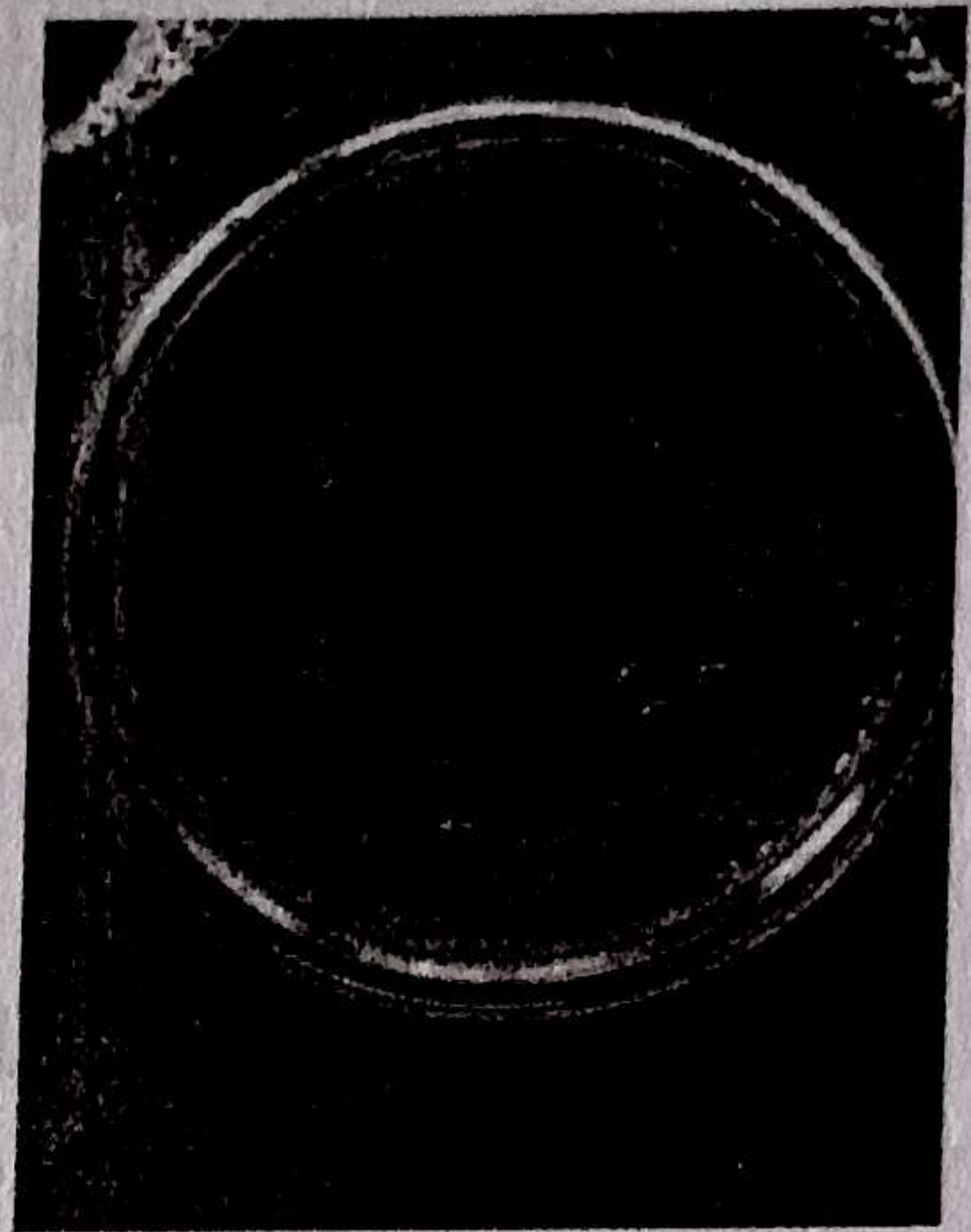


Positive presumptive test for canteen water sample





Red colonies with metallic  
green sheen on Endo agar plate



Typical, nucleated colonies  
with metallic sheen on EMB  
agar plate



Teacher Incharge

Ms. V. V. Misal