



# **MANAKULA VINAYAGAR**

## **INSTITUTE OF TECHNOLOGY**



**An Autonomous Institution**

**Affiliated to Pondicherry University. Approved by AICTE, New Delhi.**

**Accredited by NAAC with 'A' Grade**

**Kalitheerthalkuppam, Puducherry- 605 107.**

### **Department of Mechanical Engineering**

**&**

**Indian Plumbing Association (IPA)- MIT Students Chapter**

**Organizes**

**Guest lecture**

**On**

### **"Potable Water Quality and Control of Microbial Diseases"**

**Date: 13<sup>th</sup> September 2025 Time: 10.45 A.M-12.30 PM**

**By**

**Dr. P. Sriyutha Murthy,**

**Scientific Officer,**

**Department of Atomic Energy, Baba Atomic Research Facilities, Biofouling & Biofilm Process section, Water & Steam chemistry division, IGCAR,  
Kalpakkam**



***Submitted by***

### **COORDINATOR**

**Dr. Mathiarasu.A**

**Assistant Professor**

**Department of Mechanical Engineering,  
MVIT.**





# **MANAKULA VINAYAGAR**

## **INSTITUTE OF TECHNOLOGY**



**An Autonomous Institution**

**Affiliated to Pondicherry University, Approved by AICTE, New Delhi,**

**Accredited by NAAC with 'A' Grade**

**Kalitheerthalkuppam, Puducherry- 605 107.**

<b>SL.NO</b>	<b>CONTENT</b>
1.	AGENDA
2.	CIRCULAR
3.	PROGRAMME DETAILS
4.	SPEAKER PROFILE
5.	SESSION PPTs
6.	SESSION PHOTOS
7.	STUDENTS ATTENDANCE
8.	FEEDBACK FROM THE STUDENTS
9.	SDG MAPPING
10.	STUDENTS EVALUATION





# **MANAKULA VINAYAGAR**

## **INSTITUTE OF TECHNOLOGY**



**An Autonomous Institution**

**Affiliated to Pondicherry University, Approved by AICTE, New Delhi,**

**Accredited by NAAC with 'A' Grade**

**Kalitheerthalkuppam, Puducherry- 605 107.**

**Department of Mechanical Engineering**

**Indian Plumbing Association (IPA)- MIT Students Chapter**

*Organizes*

**Guest lecture on**

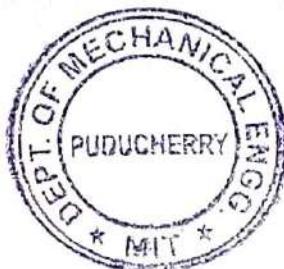
**“Potable Water Quality and Control of Microbial Diseases”**

**Date: 13<sup>th</sup> September 2025**

**Time: 10.45 A.M-12.30 PM**

### **AGENDA**

- ❖ Welcome address.
- ❖ Honoring and Felicitate the chief guest by Prof. Dr. B. Radjaram, CoE/ HoD (Dept. of Mech Engg.)
- ❖ Presidential Address by Prof. Dr. B. Radjaram, CoE/ HoD (Dept. of Mech Engg.)
- ❖ Introduction of chief guest by Sakkaravarthy, III<sup>rd</sup> Year Mech.
- ❖ Lecture session
- ❖ Vote of thanks





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University, Approved by AICTE, New Delhi.

Accredited by NAAC with 'A' Grade

Kalitheerthalkuppam, Puducherry- 605 107.

### Guest Lecture on

### “Potable Water Quality and Control of Microbial Diseases”

Name of the Staff in-charge/ Programme Coordinator		Dr. Mathiarasu.A, Asst Prof/Mech Engg			
Name of Department		MECH/ MVIT			
Topic/ Title of Programme:		<b>Guest Lecture on “Potable Water Quality and Control of Microbial Diseases”</b>			
<b>Duration &amp; Venue</b>					
Date:	From	13.09.2025	To	-	Venue:
<b>AV room</b>					
<b>Details of the Resource Person / Guest / Trainer</b>					
Name : (Mr./ Ms.) & Job Title / Designation:		<b>Dr. P. Sriyutha Murthy, Scientific Officer, Department of Atomic Energy, Baba Atomic Research Facilities,</b>			
Organization / Company		<b>Biofouling &amp; Biofilm Process section, Water &amp; Steam chemistry division, IGCAR, Kalpakkam</b>			
<b>Participants' Details</b>					
No of Participants: 51					
Expenses (in Rs)	3000/-				
<b>Objective /Purpose/Details of the Programme &amp; Its Contents</b>					
The guest lecture highlighted to educate students on potable water quality standards, treatment processes, and microbial control measures for preventing waterborne diseases.					
Whether Feedback from the Participants obtained. If Yes, enclose feedback forms.		Yes			
Outcome	Students learned water quality assessment techniques, treatment methods, and disinfection strategies to control waterborne pathogens and ensure safe potable water for disease prevention.				



13/9/2025  
**HOD/MECH**

**Dr. B. RADJARAM, M.Tech., Ph.D.**  
Professor & Head  
Dept of Mechanical Engineering  
Manakula Vinayagar Institute of Technology  
Puducherry-605 107.



An Autonomous Institution

Affiliated to Pondicherry University. Approved by AICTE, New Delhi.

Accredited by NAAC with 'A' Grade

Kalitheerthalakuppam, Puducherry- 605 107.

### GUEST PROFILE

**Dr. P. Sriyutha Murthy,**

Scientific Officer, Department of Atomic Energy, Baba Atomic Research Facilities, Biofouling & Biofilm Process section, Water & Steam chemistry division, IGCAR, Kalpakkam



#### **1. Educational Background:**

- Holds a Doctoral Degree and serves as a Professor under the prestigious **Homi Bhabha National Institute (HBNI)**, a Deemed-to-be University under the **Department of Atomic Energy (DAE), Government of India**.

#### **2. Profile:**

Dr. P. Sriyutha Murthy is a distinguished scientist and academician currently working in the **Biofouling and Biofilm Processes Section of the Water and Steam Chemistry Division (WSCD) at Bhabha Atomic Research Centre (BARC), IGCAR, Kalpakkam**.

#### **3. Work Experience:**

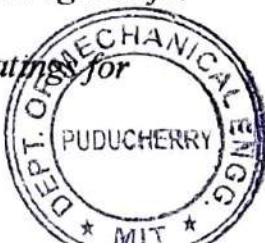
- Over three decades of research and technological development experience in multidisciplinary areas of environmental and marine biotechnology.
- Scientific Officer and Professor at HBNI, contributing significantly to India's nuclear and environmental research programs.
- Principal investigator of several national-level funded projects under DST, NRB, BRNS, and MoES.
- Author of more than 55 research papers, 17 book chapters, and 5 books; holds 1 patent; possesses an h-index of 21 and over 1869 citations.

#### **4. Core Competencies:**

1. Expertise in **Biofilm and Biofouling Control** in industrial cooling water systems.
2. Research in **Thermal Ecology and Ocean Acidification**.
3. Development of **Antifouling Coatings and Superhydrophobic Antimicrobial Surfaces**.
4. Evaluation of **Ecotoxicity of Biocides** and exploration of **Deep-Sea Biofouling**.
5. Experienced in **Bioprospecting and Marine Environmental Protection Technologies**.

#### **5. Awards & Recognitions:**

- **DAE Group Achievement Award (2011)** – For high-impact research on *Biocidal regimes for heat exchangers at Biofouling Test Loop Facility*.
- **DAE Group Achievement Award (2018)** – For *Development of Antifouling Coatings for prevention of biofouling and corrosion*.





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University. Approved by AICTE, New Delhi.

Accredited by NAAC with 'A' Grade

Kalitheerthalkuppam, Puducherry- 605 107.

### Guest Lecture on

## “Potable Water Quality and Control of Microbial Diseases”

### Photos



Guest Lecture on

## “Potable Water Quality and Control of Microbial Diseases”





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University, Approved by AICTE, New Delhi,

Accredited by NAAC with 'A' Grade

Kalitheerthalkuppam, Puducherry- 605 107.

### Guest Lecture on

## "Potable Water Quality and Control of Microbial Diseases"

Date: 13.09.25 (10.30AM – 12.30PM)

### II<sup>nd</sup> Year Students Attendance Sheet

Sl.No	REG.NO	STUDENT NAME	Signature
1	24TB0051	ARISH .A	
2	24TB0052	BHUVAN SANKAR .E	
3	24TB0053	JEAN FRANCOIS .A	
4	24TB0054	KALAI PERARASU .K	
5	24TB0055	KEVIN RAJ .K	
6	24TB0056	MOHAMED RIFAT .H	
7	24TB0057	NATHANRAJ .A	
8	24TB0058	PAHALAVAN .B	
9	24TB0059	RAGUL .K	
10	24TB0060	SARAVANAPERUMAL .B	
11	24TB0061	SHONESHWARAN P	
12	24TB0062	VISHVA .M	
13	LE1	MOHAMED SAJITH. M	
14	LE2	DILIRAJAN. V	
15	LE3	HARIKRISHNA.B	
16	LE4	BHARATH.C	



HOD/MECH

Dr. B. RADJARAM, M.Tech., Ph.D  
Professor & Head  
Dept. of Mechanical Engineering  
Manakula Vinayagar Institute of Technology  
Puducherry-605 107.



# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University, Approved by AICTE, New Delhi,

Accredited by NAAC with 'A' Grade

Kalitheerthalakuppam, Puducherry- 605 107.

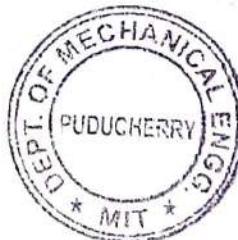
### Guest Lecture on

**"Potable Water Quality and Control of Microbial Diseases"**

Date: 13.09.25 (10.30AM – 12.30PM)

### III<sup>rd</sup> Year Students Attendance Sheet

Sl.No	REG.NO	STUDENT NAME	Signature
1	23TB0051	ABDUL SHUHAIL.A	<i>Abdul</i>
2	23TB0052	ANTONY SAM DAVIDSAN	<i>Antony</i>
3	23TB0053	ARUNKUMAR .A	<i>Arunkumar</i>
4	23TB0054	BARATH .M	<i>m. Barath</i>
5	23TB0055	DEEPAK .G	<i>Deepak</i>
6	23TB0056	HARIHARAN .S	- AB -
7	23TB0057	HARIKRASATH.K	<i>Hari krishna</i>
8	23TB0058	ILANGOVAN .C	<i>ilangovan</i>
9	23TB0059	KUMARAN .M	<i>Kumaran</i> - M
10	23TB0060	MOHAMED AFRIDH.S	<i>Afridh</i>
11	23TB0061	MOULIESWARAN .M	<i>Moulieswaran</i> - M
12	23TB0062	NANDA .M	<i>Nanda</i>
13	23TB0063	NAVIN .A	<i>Navin</i>
14	23TB0064	NITHISH .A	<i>Nithish</i>
15	23TB0065	NITHISHKUMAR .K	<i>Nithish Kumar</i>
16	23TB0066	RAGHUL KUMAR S	<i>Raghul</i>
17	23TB0067	SAKKARAVARTHI .V	<i>Sakkaran</i>
18	23TB0068	SANJAI .S	<i>Sanjay</i> - S
19	23TB0069	SESHAYAN.U	<i>Sehan</i>
20	23TB0070	THARUN .A	<i>Tharun</i>
21	23TB0071	THARUNKUMAR .M	<i>Tharun Kumar</i>
22	23TBL008	YUVARAJ .S	<i>Yuvra</i>
23	23TBL009	ADITHYAS	<i>Adithya</i>
24	23TBL010	PRABAKAR.R	<i>Prabakar</i>
25	23TBL010	VIJAYASARATHI.P	<i>Vijayasarathi</i>



Dr. B. RADJARAM, M.Tech.,Ph.D.,  
HOD/MECH

Dr. B. RADJARAM, M.Tech.,Ph.D.,  
Professor & Head  
Dept. of Mechanical Engineering  
Manakula Vinayagar Institute of Technology  
Puducherry-605 107.



# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University. Approved by AICTE, New Delhi.

Accredited by NAAC with 'A' Grade

Kalitheerthalakuppam, Puducherry- 605 107.

### Guest Lecture on "Potable Water Quality and Control of Microbial Diseases"

Date: 13.09.25 (10.30AM – 12.30PM)

#### IV<sup>th</sup> Year Students Attendance Sheet

Sl.No	REG.NO	STUDENT NAME	Signature
1.	22TB0001	DATCHINA MOORTHY.S	
2.	22TB0002	GOKUL PRASAND.G	
3.	22TB0041	GOPINATH.B	
4.	22TB0042	GOWTHAM SASIKUMAR.S	- AB -
5.	22TB0043	KIRUBAKARAN.R	
6.	22TB0044	MADHAN.M	- AB -
7.	22TB0045	MUKESH. A	
8.	22TB0047	RUKESH.S	- AB -
9.	22TB0048	SACHIN.T	
10.	22TB0049	SANGEETH ZEON MADHAV	
11.	22TB0050	SUGAN.R	
12.	22TBL014	ARAVINTHAN.S	
13.	22TBL015	ARUN.A	
14.	22TBL016	BALAJI.R	
15.	22TBL017	GURUSELVAM.R	
16.	22TBL018	LAKSHMI NARAYANAN.D	
17.	22TBL019	SHRIVARSHAAN.V	
18.	22TE0051	PAVITHRA.S	- AB -

11/9/2025

HOD/MECH

Dr. B. RADJARAM, M.Tech., Ph.D  
Professor & Head  
Dept of Mechanical Engineering  
Manakula Vinayagar Institute of Technology  
Puducherry-605 107.





**FEEDBACK FORM**

**DATE: 13.09.2025**

**TOPIC: "Potable Water Quality and Control of Microbial Diseases"**

**RESOURSE PERSON: Dr. P. Sriyutha Murthy, Scientific Officer,**

Department of Atomic Energy, Baba Atomic Research Facilities,  
Biofouling & Biofilm Process section, Water & Steam chemistry division,  
IGCAR, Kalpakkam

Name: <b>MUKESHA.A</b>	Dept.: <b>Mech</b>	Roll No.: <b>227B 0045</b>			
<b>Rating Scale:</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neither disagree nor agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
(Please tick on the number)	5	4	3	2	1

**1. Facilitator effectiveness**

a The facilitator presented clearly to assist my understanding.	5	4	3	2	1
b The facilitator promoted adequate participation	5	4	3	2	1
c The facilitator explained the concepts using relevant examples and Demo.	5	4	3	2	1
d The facilitator was able to clarify my doubts	5	4	3	2	1

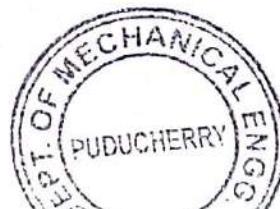
**2. Program Design**

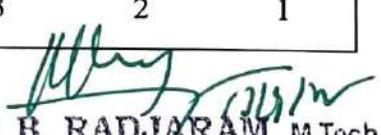
a The Program had a logical sequence	5	4	3	2	1
b The activities that we are part of the program were relevant and helped me understand the concepts	5	4	3	2	1
c Program design facilitated to improve my analytical /Thinking ability	5	4	3	2	1
d The topics discussed during the program are relevant to obtain the any Certification	5	4	3	2	1

**3. Overall**

a The training helped me to upgrade my skills	5	4	3	2	1
b I would recommend this program to my peers and juniors	5	4	3	2	1
c My overall satisfaction with the program	5	4	3	2	1

**4. Any suggestions for feedback:**



  
**Dr. B. RADJARAM, M.Tech**  
Professor & Head  
Dept. of Mechanical Engineering  
Manakula Vinayagar Institute of Technology  
Puducherry-605 107.



# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



An Autonomous Institution

Affiliated to Pondicherry University, Approved by AICTE, New Delhi.

Accredited by NAAC with 'A' Grade

Kalitheerthalkuppam, Puducherry- 605 107.

Guest Lecture on

### "Potable Water Quality and Control of Microbial Diseases"

#### SDG Mapping

**MANAKULA VINAYAGAR**  
**INSTITUTE OF TECHNOLOGY**  
(An Autonomous Institution)

Approved by the AICTE, New Delhi ; Affiliated to Pondicherry University  
Accredited by WCCA WITH 'A' Grade and NBA (National Board of Accreditation)  
Kalitheerthalkuppam, Puducherry - 605 107  
Ph: 0415-2642897 | Website: [www.mvit.edu.in](http://www.mvit.edu.in)

**DEPARTMENT OF MECHANICAL ENGINEERING**

&

**INDIAN PLUMBING ASSOCIATION(IPA)**  
**MIT Mechanical Engineering Students Chapter**

Organizes

Guest lecture

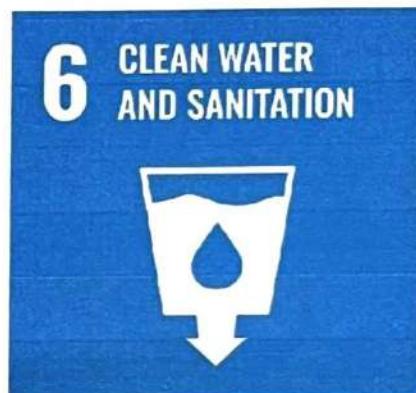
On

**"Potable Water Quality  
and  
Control of Microbial Diseases"**

*Chief Guest*

**Dr. P. SRIYUTHA MURTHY,**  
Scientific Officer, Department of Atomic Energy,  
Baba Atomic Research Facilities,  
Biofouling & Biofilm Process section,  
Water & Steam chemistry division,  
IGCAR, Kalpakkam.

Date: 13.09.2025  
Venue: AV Room





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY

Approved by the AICTE, New Delhi - Affiliated to Pondicherry University  
 Accredited by NAAC WITH 'A' Grade and NBA (National Board of Accreditation)  
 Kalitheerthalkuppam, Puducherry - 605 107  
 Ph: 0413 2643007 / Website: www.mvit.edu.in



### Guest Lecture on

**"Potable Water Quality and Control of Microbial Diseases"**

**Date: 13.09.25 (10.30AM – 12.30PM)**

### **II<sup>nd</sup> Year Mech Students Evaluation Sheet**

Sl.No	REG.NO	STUDENT NAME	MARKS OBTAINED
1	24TB0051	ARISH .A	8
2	24TB0052	BHUVAN SANKAR .E	6
3	24TB0053	JEAN FRANCOIS .A	8
4	24TB0054	KALAI PERARASU .K	8
5	24TB0055	KEVIN RAJ .K	6
6	24TB0056	MOHAMED RIFAT .H	6
7	24TB0057	NATHANRAJ .A	7
8	24TB0058	PAHALAVAN .B	6
9	24TB0059	RAGUL .K	9
10	24TB0060	SARAVANAPERUMAL .B	7
11	24TB0061	SHONESHWARAN P	6
12	24TB0062	VISHVA .M	8

17/9/25  
HOD/MECH

**Dr. B. RADJARAM, M.Tech.,Ph.D.,**

Professor & Head

Dept. of Mechanical Engineering  
 Manakula Vinayagar Institute of Technology  
 Puducherry-605 107.





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



Approved by the AICTE, New Delhi - Affiliated to Pondicherry University  
 Accredited by NAAC WITH 'A' Grade and NBA (National Board of Accreditation)  
 Kallitheerthalakuppam, Puducherry - 605 107  
 Ph: 0413 2643007 / Website: www.mvit.edu.in

### Guest Lecture on

**"Potable Water Quality and Control of Microbial Diseases"**

**Date: 13.09.25 (10.30AM – 12.30PM)**

### III Year Mech Students Evaluation Sheet

Sl.No	REG.NO	STUDENT NAME	MARKS OBTAINED
1	23TB0051	ABDUL SHUHAIL.A	6
2	23TB0052	ANTONY SAM DAVIDSAN	6
3	23TB0053	ARUNKUMAR .A	9
4	23TB0054	BARATH .M	7
5	23TB0055	DEEPAK .G	7
6	23TB0056	HARIHARAN .S	- PB -
7	23TB0057	HARIPRASATH.K	9
8	23TB0058	ILANGOVAN .C	8
9	23TB0059	KUMARAN .M	6
10	23TB0060	MOHAMED AFRIDH.S	6
11	23TB0061	MOULIESWARAN .M	8
12	23TB0062	NANDA .M	6
13	23TB0063	NAVIN .A	6
14	23TB0064	NITHISH .A	6
15	23TB0065	NITHISHKUMAR .K	6
16	23TB0066	RAGHUL KUMAR S	7
17	23TB0067	SAKKARAVARTHI .V	8
18	23TB0068	SANJAI .S	7
19	23TB0069	SESHAYAN.U	7
20	23TB0070	THARUN .A	6
21	23TB0071	THARUNKUMAR .M	8
22	23TB0072	YUVARAJ .S	7
23	23TBL008	ADITHYA.S	6
24	23TBL009	PRABAKAR.R	8
25	23TBL010	VIJAYASARATHI.P	8

Dr. B. Radjaram, M.Tech., Ph.D.  
 Professor & Head  
 Dept. of Mechanical Engineering  
 Manakula Vinayagar Institute of Technology  
 Puducherry-605 107.





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



Approved by the AICTE, New Delhi - Affiliated to Pondicherry University  
Accredited by NAAC WITH 'A' Grade and NBA (National Board of Accreditation)  
Kallitheerthalakkupparn, Puducherry - 605 107  
Ph: 0413 2643007 / Website: www.mvit.edu.in

### Guest Lecture on

#### "Potable Water Quality and Control of Microbial Diseases"

Date: 13.09.25 (10.30AM – 12.30PM)

### QUIZ

9  
10

NAME: ARAVINTHAN S

YR: 1<sup>ST</sup> REG. NO.: 22TBL014

1. Which of the following parameters is most important for determining *potable water quality*?

- A) Turbidity
- B) pH
- C) Presence of coliform bacteria
- D) Temperature

2. The term "potable water" refers to:

- A) Water used for agriculture
- B) Water suitable for industrial use
- C) Water safe for human consumption
- D) Water used for cleaning and sanitation

3. The World Health Organization (WHO) recommends that the **total coliform bacteria** in 100 ml of drinking water should be:

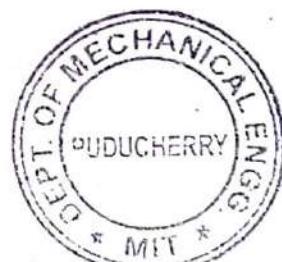
- A) Less than 100
- B) Less than 10
- C) Less than 1
- D) Zero

4. Which of the following diseases is *not* primarily water-borne?

- A) Cholera
- B) Typhoid
- C) Tuberculosis
- D) Hepatitis A

5. The **most common indicator organism** for microbial contamination in water is:

- A) Salmonella
- B) Escherichia coli (E. coli)
- C) Vibrio cholerae
- D) Pseudomonas aeruginosa





# MANAKULA VINAYAGAR

## INSTITUTE OF TECHNOLOGY



Approved by the AICTE, New Delhi - Affiliated to Pondicherry University  
Accredited by NAAC WITH 'A' Grade and NBA (National Board of Accreditation)  
Kalliteerthalkuppam, Puducherry - 605 107  
Ph: 0413 2643007 / Website: www.mvit.edu.in

### Guest Lecture on

#### "Potable Water Quality and Control of Microbial Diseases"

Date: 13.09.25 (10.30AM – 12.30PM)

7/10

### QUIZ

NAME: S. Sanjai

YR: III

REG. NO.: 23TB0068

1. Which of the following parameters is most important for determining *potable water quality*?

- A) Turbidity
- B) pH
- C) Presence of coliform bacteria
- D) Temperature

2. The term "potable water" refers to:

- A) Water used for agriculture
- B) Water suitable for industrial use
- C) Water safe for human consumption
- D) Water used for cleaning and sanitation

3. The World Health Organization (WHO) recommends that the **total coliform bacteria** in 100 ml of drinking water should be:

- A) Less than 100
- B) Less than 10
- C) Less than 1
- D) Zero

4. Which of the following diseases is *not* primarily water-borne?

- A) Cholera
- B) Typhoid
- C) Tuberculosis
- D) Hepatitis A

5. The **most common indicator organism** for microbial contamination in water is:

- A) Salmonella
- B) Escherichia coli (E. coli)
- C) Vibrio cholerae
- D) Pseudomonas aeruginosa

