

**PROJECT REPORT** of B.Sc. 6<sup>th</sup> SEM  
**BOTANY (MAJOR)**  
**ON MICROBIOLOGY OF WATER**

**2016-17**

**Physico-Chemical and Microbial Analysis of  
Drinking Water Quality of some areas of  
Tinsukia Town with special reference to  
'COLIFORM BACTERIA'**



**TINSUKIA COLLEGE,  
DIBRUGARH UNIVERSITY**

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## Certificate

This is to certify that Asha Chetri, student of B.Sc. 6<sup>th</sup> semester, Botany (Major) of Tinsukia College has completed her Project work report entitled 'Physico-chemical and microbial analysis of drinking water quality of some areas of Tinsukia with special reference to Coli form Bacteria' successfully as a part of the syllabus (for the academic session 2016-2017) under my guidance.

This is a bonafide record performed by her.

She is being wished with the very best of her luck for the future.

Date:

21-4-2017

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## Preface

This Project report is the combination of our Experimental work on microbiology of water based on botanical study. Being a student of B. Sc. 6<sup>th</sup> semester Botany (Major) of Tinsukia College we have undertaken this Project report entitled 'Physico-chemical and microbial analysis of drinking water quality of some areas of Tinsukia with special reference to COLIFORM BACTERIA', as a part of the syllabus under Dibrugarh University during session 2016-17. This report has been made full care following the various suggestions received from teachers. It is hoped this report will be accepted under due consideration.

Anha chetry

## **ACKNOWLEDGEMENT**

It is my utmost privilege in presenting the concerned Project work. In this regard, I would like to pay my heart-full thanks and gratitude to Dr. (Mrs.) Sanjukta Gohain Baruah, Associate Professor & HOD, for her cordial co-operation and guidance in making the Project work a success.

I am also grateful to our Laboratory assistant Sri Lilakanta Bhattarai for his valuable advice and co-operation in our project work.

It is also my duty to owe my deep sense of gratitude to all my fellow members in the project for their help and support required for the completion of our project report.

*Asha Chetry*

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Photographs



PHOTOGRAPH 1: Coliform bacteria found on sample 1.



PHOTOGRAPH 2: Light and red coloured coliform bacteria of sample 2.

Photographs



PHOTOGRAPH 3 :- white coloured irregular coliform bacteria of Sample 3.



PHOTOGRAPH 4: Incubated test tube of Sample 1, 2, and 3 which show acid and gas formation.

Photographs



PHOTOGRAPH 5 : Incubated water sample of 4, 5, 6.



Fig:- Production of red pink colour which indicates the presence of indole in the sample.



Photographs



PHOTOGRAPH 7: Red colour shown as positive as positive methyl test.



PHOTOGRAPH 8: Voges Proskauer test: Development of pink colour shows a positive reaction.