

Criteria 1- Curricular Aspects

1.3 – Curriculum Enrichment

1.3.2. Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

1.3.2.1. Number of students undertaking project work/field work / internships

DVV Query

Provide Internship completion certificate/ project work completion of Atkare Shweta Bhagwat Bandsode Siddhi Sanjay Gaikwad Mahesh Digambar Humbad Devidas Namdeo Jadhav Santosh Dilip Kharabe Vaibhav Babasaheb Mahadkar Sheetal Machindra Mahale Hrishikesh Motilal Patil Lokesh Gopal Pimparkar Ashish Kundlik Pol Apurva Ramesh Sahu Surbhi Narendra Vaishnav Mayur Arjundas Vibute Shweta Ravindra Waghmare Supriya Hari Bade Manisha Subhash Chiwane Pallavi Ganesh Dain Pragati Raghunath Darwatkar Ritu Dinesh Gosavi Uniket Manohar for the year 2021-22 from the organization where internship/project was completed along with the duration.

Provide Report of the field visit/ sample photographs of the field visit/ permission letter from the competent authority

DVV Clarifications

Item 1.3.2.1 of DVV response: Scan copies of project work completion certificate of above listed students

Scan copies of the field visit report, sample photographs and permission letter from the competent authority

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Project work Completion Certificates of students

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph.D.
Professor-Pharmaceutical Chemistry,
Principal,
SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled
***“REPURPOSING CELECOXIB FOR TOPICAL TREATMENT
OF SKIN INFECTIONS”***

By

Mrs .Shweta Bhagwat Atkare

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) has
been carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. (Mrs.)
Madhur Kulkarni*

Date: 27/7/2022
Place: PUNE



Dr. (Mrs.) Anagha M. Joshi
Principal
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
Principal and Professor of Pharmaceutical
Chemistry, SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled

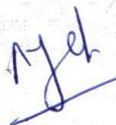
*"Permeation enhancement of chlorthalidone using SNEDDS as a
carrier and Borneol as a bioenhancer"*

By

Miss. SIDDHI SANJAY BANDSODE

*In the partial fulfillment of degree of Master of Pharmacy (Pharmaceutics)
has been carried out in the laboratories of SCES's Indira College of
Pharmacy, Tathawade, Pune 411033, under the guidance and supervision
of Dr. (Mrs.) Madhur Kulkarni.*

Date: 20/07/2022



Dr. (Mrs.) Anagha M. Joshi

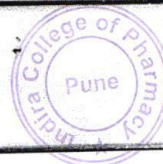
PRINCIPAL

PRINCIPAL

Place: PUNE

Indira College of Pharmacy
Tathawade, Pune - 411033

Indira College of Pharmacy
Tathawade, Pune - 411 033



Dr. (Mrs.) Anagha M. Joshi
M. Pharm. ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled

**“Development and evaluation of vaginal unit dosage
formulations of tenofovir disoproxil fumarate & zinc acetate
combination for the treatment of genital herpes”**


By

Mr. Mahesh Digambar Gaikwad

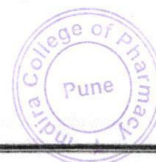
In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) has been
carried out in the laboratories of SCES's Indira College of Pharmacy, Tathawade, Pune
411033, under the guidance and supervision of Dr (Mrs.) Madhur Kulkarni.

Date: 20/07/2022
Place: Pune




Dr. (Mrs.) Anagha M. Joshi
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033



Dr. (Mrs.) Anagha M. Joshi

M. Pharm. Ph. D

Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled


***“Formulation and Evaluation of Bilayered Nail Lacquer of
Luliconazole for Treatment of Onychomycosis”***

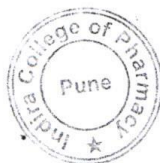
By

Devidas Namdev Humbad

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics)
carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. AMIR A
SHAIKH.*





PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033



Date: 02/08/2022

Place: PUNE


Dr. (Mrs.) Anagha M. Joshi
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled

**“PREPARATION AND CHARACTERIZATION OF CEFDINIR
MONOHYDRATE SOLID LIPID NANOPARTICLES BY
VARIOUS METHODS”**

By

SANTOSH D. JADHAV

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics)
carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. AMIR A.
SHAIKH*

Date: 20/7/2022
Place: PUNE



AJ
Dr. Anagha M. Joshi

Principal
PRINCIPAL

Indira College of Pharmacy
Tathawade, Pune - 411 033

AJ
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi

M. Pharm. Ph. D

Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled

**“Formulation and Evaluation of an Extended Release Tablet of
Famotidine for Treatment of Peptic Ulcer”**

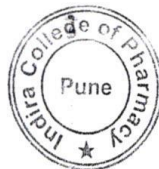
By

Kharabe Vaibhav Babasaheb

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) carried out in
the laboratories of SCES's Indira College of Pharmacy, Tathawade, Pune 411033,
under the guidance and supervision of Dr. Amir Shaikh.*



Mjeh



PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Mjeh

Date: 02/08/2022

Place: PUNE

PRINCIPAL
Dr. (Mrs.) Anagha M. Joshi
Tathawade, Pune - 411 033
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled

**"FORMULATION DEVELOPMENT AND EVALUATION OF AN
IMMEDIATE RELEASE TABLET OF ESLICARBAZEPINE ACETATE"**

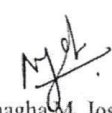
By

Ms. Sheetal Machindra Mahadkar

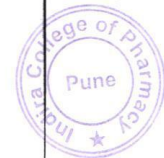
*In the partial fulfillment of degree of Master of Pharmacy (Pharmaceutics)
Carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. Amir
Shaikh.*

Date: 06/1/2022
Place: PUNE




Dr. Anagha M. Joshi

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033





PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph.D.
Professor-Pharmaceutical Chemistry,
Principal,
SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate


This is to certify that the work presented in the thesis entitled
**"FORMULATION, DEVELOPMENT, AND EVALUATION OF
IMMEDIATE RELEASE CHLORPROMAZINE
HYDROCHLORIDE TABLET 100MG."**

By

Mr. Hrishikesh Motilal Mahale

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) has
been carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. (Mrs.)
Madhur Kulkarni and under the Co-guidance and supervision of Mr. Saswat
Padhi.*

Date: 2/8/2022
Place: PUNE


Dr. (Mrs.) Anagha M. Joshi
Principal


PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033



Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph.D.
Professor-Pharmaceutical Chemistry,
Principal,
SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate


This is to certify that the work presented in the thesis entitled
**"FORMULATION, DEVELOPMENT, AND EVALUATION OF
DIVALPROEX SODIUM EXTENDED-RELEASE TABLETS."**

By

Mr. LOKESH GOPAL PATIL

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) has
been carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. (Mrs.)
Madhur Kulkarni and under the Co-guidance and supervision of Dr. (Mr.)
Pankaj Mandape*

Date: 3/8/2022
Place: PUNE


Dr. (Mrs.) Anagha M. Joshi
Principal


PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Scanned with CamScanner

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled

**“Formulation Development and Evaluation of Atomoxetine
Hydrochloride IR Capsule for Treatment of ADHD”**

By

MR. ASHISH KUNDLIK PIMPARKAR

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics)
carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of Dr. Amir
Shaikh.*



Date: 21/07/2022
Place: PUNE



[Signature]
Dr. Anagha M. Joshi
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

[Signature]
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph.D.
Professor-Pharmaceutical Chemistry,
Principal,
SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate


This is to certify that the work presented in the thesis entitled
**"FORMULATION AND EVALUATION OF TOPIRAMATE
EXTENDED RELEASE CAPSULES, 200 MG."**

By


Miss. Apurva Ramesh Pol

In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) has
been carried out in the laboratories of SCES's Indira College of Pharmacy,
Tathawade, Pune 411033, under the guidance and supervision of **Dr. (Mrs.)
Madhur Kulkarni** and under the Co-guidance and supervision of **Mr. Saswat
Padhi**.

Date: 3/08/2022
Place: PUNE


Dr. (Mrs.) Anagha M. Joshi
Principal
Indira College of Pharmacy
Tathawade, Pune - 411 033




S S Damer


PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi

M. Pharm. Ph. D

Principal and Professor of Pharmaceutical chemistry,

SCES's Indira College of Pharmacy, Tathawade,

Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled

**“To develop a stable, effective and optimized Generic formulation
of Omeprazole Gastro Resistant capsules 40mg”**

By

Surbhi Narendra Sahu

In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics)


carried out in the laboratories of SCES's Indira College of Pharmacy, Tathawade,


*Pune 411033, under the guidance and supervision of Dr. (Mrs.) MADHUR
KULKARNI*



Date: 21/07/2022

Place: PUNE


Dr. Anagha M. Joshi
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033


PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled

**“Formulation and Evaluation of an Antipsychotic Extended
Release Tablet”**

By

Mayur Arjun Vaishnav

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics),
carried out in the laboratories of SCES's Indira College of Pharmacy, Tathawade,
Pune 411033, under the guidance and supervision of Dr. Amir Shaikh.*



Date: 21/07/2022
Place: PUNE

Amir Shaikh
Amir Shaikh
Dr. Anagha M. Joshi
Principal
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled

**Oral bioavailability enhancement of niclosamide to explore its
repurposing potential**

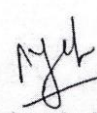
By

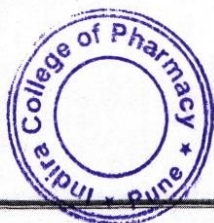
Ms. Shweta Ravindra Vibhute

In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutics) has been carried out in the laboratories of SCES's Indira College of Pharmacy, Tathawade, Pune 411033, under the guidance and supervision of Dr (Mrs.) Madhur Kulkarni.

Date: 21/7/2022
Place: Pune




Dr. (Mrs.) Anagha M. Joshi
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033




PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
Principal and Professor of Pharmaceutical
Chemistry, SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled

*"Formulation And Development of Euphorbia Hirta Phytosome
Capsule for Treatment of Urinary Tract Infection"*

By

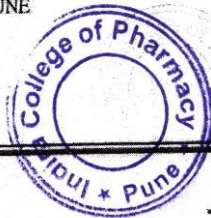
Miss. Waghmare Supriya Hari

*In the partial fulfillment of degree of Master of Pharmacy (Pharmaceutics)
has been carried out in the laboratories of SCES's Indira College of
Pharmacy, Tathawade, Pune 411033, under the guidance and supervision
of Dr. Amir Shaikh*

Date: 21/07/2022

Dr. (Mrs.) Anagha M. Joshi

Place: PUNE



PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph.D.
Professor-Pharmaceutical Chemistry,
Principal,
SCES's Indira College of Pharmacy,
Tathawade, Pune 411033.

Certificate

This is to certify that the work presented in the thesis entitled
***“Analytical method development and validation for RP-HPLC
method of analysis for assay of Quetiapine in Quetiapine Fumarate
ER Tablets 50mg and 400mg”***

By

Ms. Manisha Subhash Bade

*In the partial fulfilment of degree of Master of Pharmacy
(Pharmaceutical Quality Assurance) has been carried out in the
laboratories of SCES's Indira College of Pharmacy, Tathawade,
Pune 411033 and V-Ensure Pharma technologies Pvt Ltd. Navi
Mumbai, under the guidance and supervision of Dr. (Mrs.) Mansi
Wagdarikar and under the Co-guidance and supervision of Mr.
Narayan Raktade.*

Date: 26/7/2022

Place: PUNE



Dr. (Mrs.) Angha M. Joshi

Principal

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033.



Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

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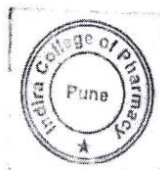
**"To Develop and Validate RP-HPLC Method for simultaneous estimation of
Ranolazine and its Related substances in tablet formulation"**

By

Pallavi G. Chiwhane

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutical
Quality Assurance) carried out in the laboratories of SCES's Indira College of
Pharmacy, Tathwade, Pune 411033, under the guidance and supervision of Dr.
Anagha M. Joshi.*

Date: 25/7/2022
Place: PUNE



M. Joshi
Dr. Anagha M. Joshi
Principal

M. Joshi
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033



Dr. (Mrs.) Anagha M. Joshi
M. Pharm. Ph. D
Principal and Professor of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade,
Pune 411033

Certificate

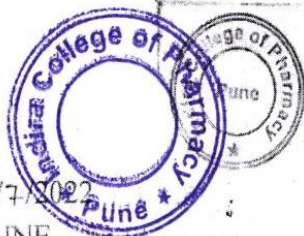
This is to certify that the work presented in the thesis entitled

**“Development and Validation of stability indicating RP-HPLC
method for Andrographis Paniculata”**

By

Ms. Pragati Raghunath Dain

*In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutical
Quality Assurance) carried out in the laboratories of SCES's Indira College of
Pharmacy, Tathwade, Pune 411033, under the guidance and supervision of
Dr. Anagha M. Joshi.*



Date: 25/7/2022
Place: PUNE

Dr. Anagha M. Joshi
Principal

nyeh
PRINCIPAL
Indira College of Pharmacy
Tathawade Pune - 411 033

Dr. (Mrs.) ANAGHA. JOSHI

M. Pharm. Ph. D

Principal and Professor of Pharmaceutical chemistry,

SCES's Indira College of Pharmacy, Tathawade,

Pune-411033.

Certificate

This is to certify that the work presented in the thesis entitled

“DEVELOPMENT AND VALIDATION OF RP-HPLC METHOD FOR SIMULTANEOUS DETERMINATION OF ANDROGRAPHOLIDE, BARBALOIN, BERBERINE, CONESSINE AND SHOGAOL IN POLYHERBAL FORMULATIONS.”

&

“INSTRUMENT QUALIFICATION OF UV SPECTROPHOTOMETER.”

By

Ms. RITU DINESH DARWATKAR

In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutical Quality Assurance) carried out in the laboratories of SCES's Indira College of Pharmacy, Tathawade, Pune 411033, Chromein labs, Bhosari and VitaScientia Globus PVT. LTD., Baner under the guidance and supervision of Dr. ANAGHA JOSHI, Mr. SONUNE and Mrs. VARSHA GOVARDHAN.

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Date: 25/07/2022

Place: PUNE



M. J.
Dr. ANAGHA. JOSHI
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Dr. (Mrs.) Anagha M. Joshi

M. Pharm. Ph. D

Professor and Principal of Dept. of Pharmaceutical chemistry,
SCES's Indira College of Pharmacy, Tathawade, Pune 411033

Certificate

This is to certify that the work presented in the thesis entitled

**“Development and Validation of RP-HPLC Method of Analysis For
Assay of Spironolactone”**

By

Mr. Uniket M. Gosavi

In the partial fulfilment of degree of Master of Pharmacy (Pharmaceutical Quality Assurance) carried out in the laboratories of SCES's Indira College of Pharmacy, Tathawade, Pune 411033, under the guidance and supervision of Dr. (Mrs.) Anagha M. Joshi



[Signature]
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

Date: 25/07/2022

Place: PUNE



Dr. (Mrs.) Anagha M. Joshi

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

[Back To Index](#)

FIELD VISIT

**A REPORT ON
FIELD VISIT
TO
WATER TREATMENT PLANT**

Nigdi Pradhikaran, Pune

Submitted By:

- 1. SHRAVANI KHENAT**
- 2. URVA GAUNEKAR**
- 3. PRATIKSHA GADHAVE**
- 4. MAYURI PATIL**
- 5. PRIYA VISHWAKARMA**

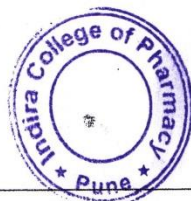
(First Year B.Pharm.)



SCES's Indira College of Pharmacy, Tathawade

.. Pune- 411033

(2021-2022)



myel
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

myel
PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033

A VISIT TO WATER TREATMENT PLANT

By Indira college of Pharmacy

26 July, 2022

Pimpri Chinchwad, Pune

A field trip to Water treatment plant, sector 23, Nigdi was successfully organized by our college on 26th July, 2022. First year students along with the faculty members visited the Water treatment plant to understand how the plant actually works. To acquire the knowledge of purification activity, management process and technological works.



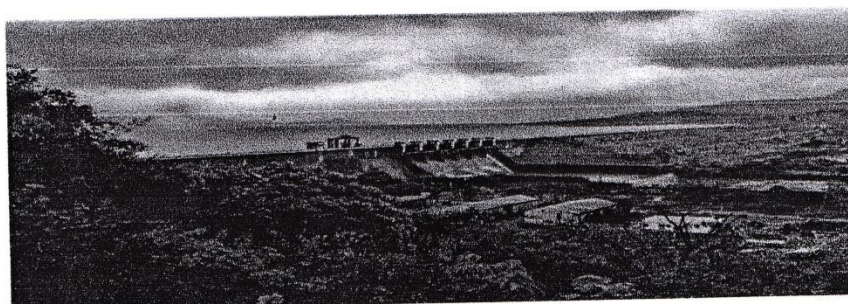
We all students went to Water Treatment Plant in college bus. The bus left the campus by 9:45 AM and reached the venue by 11:00 AM.



PRINCIPAL
Indira College of Pharmacy
Tathane, Pune - 411 033

After the security check we all were given a brief introduction about the entire process by one of the members of the water treatment plant by the use of animated videos and various presentations.

They also showed us the images of Pawna Dam which is the main source of water in Water treatment plant. 420MLD [millions Litres Per Day] water travels 4kms to reach the plant. It serves about 27 lakhs people of the city.

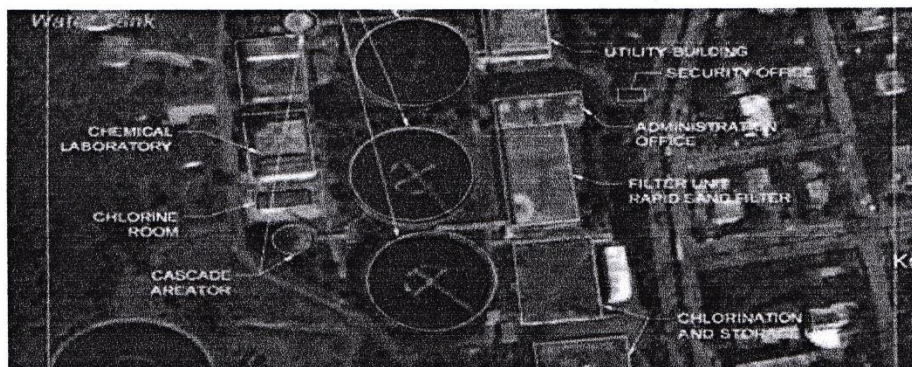


They explained us the entire process.



M. J. J.

PRINCIPAL
Indira College of Pharmacy
Tathawade, Pune - 411 033



Generally, the process starts with-

1. Screening

To protect the main units of a treatment plant and to aid in their efficient operation, it is necessary to use screens to remove any large floating and suspended solids that are present in the inflow. These materials include leaves, twigs, paper, rags and other debris that could obstruct flow through the plant or damage equipment. There are coarse and fine screens.

Coarse screens are steel bars spaced 5–15 cm apart, which are employed to exclude large materials (such as logs and fish) from entering the treatment plant, as these can damage the mechanical equipment. The screens are made of corrosion-resistant bars and positioned at an

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angle of 60° to facilitate removal of the collected material by mechanical raking.

2. Aeration

After screening, the water is aerated (supplied with air) by passing it over a series of steps so that it takes in oxygen from the air. This helps expel soluble gases such as carbon dioxide and hydrogen sulphide (both of which are acidic, so this process makes the water less corrosive) and also expels any gaseous organic compounds that might give an undesirable taste to the water. Aeration also removes iron or manganese by oxidation of these substances to their insoluble form. Iron and manganese can cause peculiar tastes and can stain clothing. Once in their insoluble forms, these substances can be removed by filtration.

Aeration –

Dissolving oxygen into the water to remove smell and taste, promote helpful bacteria to grow, and precipitate nuisance metals like iron and manganese.



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In certain instances, excess algae in the raw water can result in algal growth blocking the sand filter further down the treatment process. In such situations, chlorination is used in place of, or in addition to, aeration to kill the algae, and this is termed **pre-chlorination**. This comes before the main stages in the treatment of the water. (There is a chlorination step at the end of the treatment process, which is normal in most water treatment plants). The pre-chlorination also oxidises taste- and odour-causing compounds.

3. Coagulation and flocculation

After aeration, **coagulation** takes place, to remove the fine particles (less than 1 μm in size) that are suspended in the water. In this process, a chemical called a **coagulant** (with a positive electrical charge) is added to the water, and this neutralises the negative electrical charge of the fine particles. The addition of the coagulant takes place in a rapid mix tank where the coagulant is rapidly dispersed by a high-speed impeller

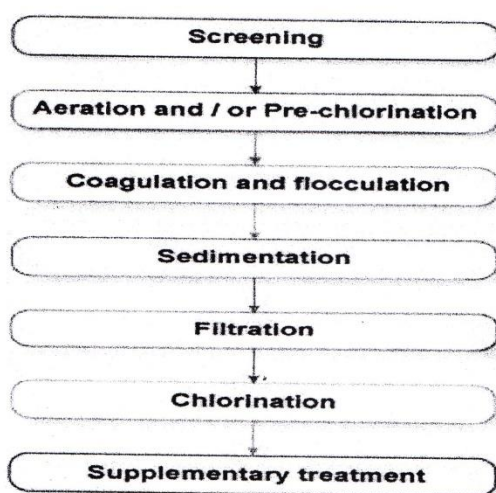
Since their charges are now neutralised, the fine particles come together, forming soft, fluffy particles called 'flocs'.



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(Before the coagulation stage, the particles all have a similar electrical charge and repel each other, rather like the north or south poles of two magnets.) Two coagulants commonly used in the treatment of water are aluminium sulphate and ferric chloride.



4. Sedimentation

Once large flocs are formed, they need to be settled out, and this takes place in a process called **sedimentation** (when the particles fall to the floor of a settling tank). The water (after coagulation and flocculation) is kept in the tank for several hours for sedimentation to take place. The material accumulated at

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the bottom of the tank is called sludge; this is removed for disposal.



5. Filtration

Filtration is the process where solids are separated from a liquid. In water treatment, the solids that are not separated out in the sedimentation tank are removed by passing the water through beds of sand and gravel.

When the filters are full of trapped solids, they are backwashed. In this process, clean water and air are pumped backwards up the filter to dislodge the trapped impurities, and the water carrying the dirt (referred to as backwash) is pumped into the sewerage system, if there is one. Alternatively, it may be discharged back into the source river after a settlement stage in a sedimentation tank to remove solids.

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6. Chlorination

After sedimentation, the water is **disinfected** to eliminate any remaining pathogenic micro-organisms. The most commonly used disinfectant (the chemical used for disinfection) is chlorine, in the form of a liquid (such as sodium hypochlorite, NaOCl) or a gas. It is relatively cheap, and simple to use. When chlorine is added to water it reacts with any pollutants present, including micro-organisms, over a given period of time, referred to as the **contact time**. The amount of chlorine left after this is called **residual chlorine**. This stays in the water all the way through the distribution system, protecting it from any micro-organisms that might enter it, until the water reaches the consumers.

World Health Organization Guidelines (WHO, 2003) suggest a maximum residual chlorine of 5 mg l^{-1} of water. The minimum residual chlorine level should be 0.5 mg l^{-1} of water after 30 minutes' contact time (WHO, n.d.). There are other ways of disinfecting water (e.g. by using the gas ozone, or ultraviolet radiation) but these do not protect it from microbial contamination after it has left the

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water treatment plant. Following disinfection the treated water is pumped into the distribution system.

7. Supplementary treatment


Supplementary treatment may sometimes be needed for the benefit of the population. One such instance is the **fluoridation** of water, where fluoride is added to water. It has been stated by the World Health Organization that 'fluoridation of water supplies, where possible, is the most effective public health measure for the prevention of dental decay' (WHO, 2001). The optimum level of fluoride is said to be around 1 mg per litre of water (1 mg l^{-1}).

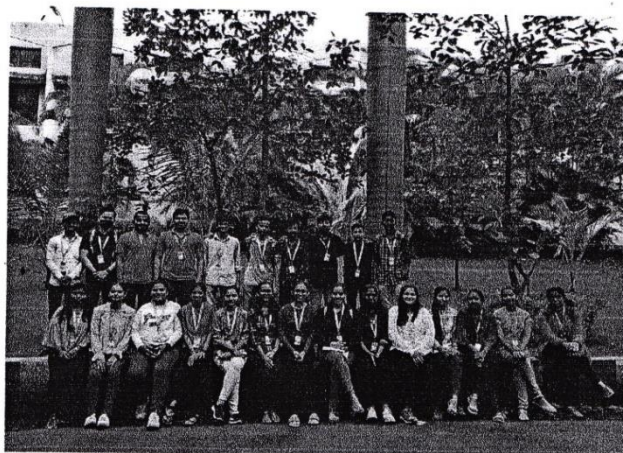
The safe level for fluoride is 1.5 mg l^{-1} .

- What does excess fluoride in the water lead to?

In such high-fluoride areas, removal or reduction of fluoride (termed **defluoridation**) is essential. The simplest way of doing this is to blend the high-fluoride water with water that has no (or very little) fluoride so that the final mixture is safe. If this is not possible, technical solutions may be applied.




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The visit to WATER TREATMENT PLANT enriched our knowledge and experience and also provided a great opportunity to learn practically through demonstration, interactions, exchange of information and employment practices which will help students in their future career growth.



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PHOTOGRAPHS



Shree Chanakya Education Society's
INDIRA COLLEGE OF PHARMACY, PUNE
"Redefining Pharmacy Education"



Environmental Field Trip to Water Treatment Plant



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PERMISSION LETTER

Office :- Flat No. 301, Third Floor,
Eisha Footprint , Near
Shani Mandir,
Tathawade, Pune-411033

KAVITA KULHADE
B.Com, L.L.B.
ADVOCATE
Mobile No.9028998020

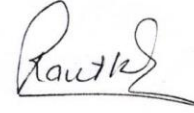
CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that as per the instructions of Dr.Tarita Shankar, I have translated in English the document Reference - Water Purification Center Se.No.23, Dated 21/07/2022 , from Pimpri Chinchwad Municipal Corporation Munnicipality, Pimpri, 411018 of Water supply Department ,which was in Marathi Language. The said translation of the said document is true and correct. Translation of the said letter is annexed herewith.


Pune

Date: 04 November , 2022.



Kavita Kulhade
ADVOCATE




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Indira College of Pharmacy
Tathawade, Pune - 411 033





Pimpri Chinchwad Municipal Corporation
Municipality, Pimpri, 411018
Water Purification Center, Se. No. 23, Water Supply Department,
Date : 21/07/2022

To,

Indira College of Pharmacy,
Tathawade, Pune- 411033

Subject : Permission to visit the Water Purification Center Project of Pimpri
Chinchwad Municipal Corporation- Water Supply Department Sector
23

Reference : Telephonic Discussion on 20.07.2022

Sir,

With reference to the abovementioned subject and as per your request, your visit is scheduled and confirmed on below date and time for Four Faculty members and 50 students to the Water Purification Center Project of Pimpri Chinchwad Municipal Corporation- Water Supply Department at Sector 23 Nigadi, Pune.

Sr. No.	Date	Time	Fee
1.	26/07/2022 One Day Visit- 50 Students	Morning 10.00 a.m.	As per Rules


As mentioned above, the attending students should contact our office and deposit the fee in advance or on the day of the visit before the scheduled time. Also the terms and conditions regulations on the continuing page will remain binding on your school/ college/ institution.

Hence, you are permitted to visit the Water Purification Center Project to get Process information with the students as per the date and time confirmed.

Deputy Engineer,
Water Purification Center, Sector 23, Water Supply,
Pimpri Chinchwad Municipal Corporation
Nigadi, Pune- 411044
Email: wtp@pcmcindia.gov.in

Copy to- Security Department

Please make the necessary security and precautionary arrangement.


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(P.T.O.)





**Pimpri Chinchwad Municipal Corporation
Municipality, Pimpri, 411018**

Rules/Conditions/ Regulations for the citizens/ individuals/students wish to visit the Project-


1. Students up to class VII will not be allowed to visit the Water Purification Center Project.
2. The concerned Institution / School / College shall be solely responsible for the safeguard of the teachers/professors/students during the entire project visit.
3. Not more than 50 persons/students will be allowed at a time for any reason in order to avoid overcrowding in Jal Kendra.
4. For safety reasons, persons/students should hold on to the railings/grills while passing near the dedicated dewatering tank near the water.
5. For every 50 students it will be compulsory to have 4 teachers/professors/co-workers.
6. Students will be prohibited from walking alone/boys/girls or in groups within the premises of the Water Purification Center Project and if found, the concerned students will be immediately expelled from the Water Purification Center, and the entire field trip will be stopped immediately.
7. It will be prohibited to bring mobiles/cameras and any kind of electronic items/tools inside the project premises during the project visit.
8. Private Schools/Colleges/Institutions unable to comply with the conditions in given time for any reason will be denied admission.
9. Private Schools/Colleges/Institutions should take care to keep the list of students present before the scheduled time and pay the fees accordingly.
10. The Water Supply Department of the Pimpri Chinchwad Municipal Corporation reserves the right to withhold/cancel or postpone the visit without giving any reason.
11. It should be noted that the entire responsibility of following all the above rules/conditions is on the concerned school/college/institution and in case of negligence or neglect, the visit of the concerned will be canceled immediately.



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ATTESTED

**PRAKASH M. DAMBRE
NOTARY, GOVT. OF INDIA
PUNE**

04 NOV 2022



महानगरपालिका, पिंपरी-४११०१८.
जलशुध्दीकरण केंद्र,से.२३,पाणीपुरवठा विभाग,
जावक क्रमांक जशुकें/पा.पु./से.२३./४९५/२०२२
दिनांक २१/०७/२०२२

प्रति,

इंदिरा कॉलेज ऑफ pharmacy ,(Rahul Sir 7350432320)
ताथवडे ,पुणे-४११ ०३३.

विषय :- पिंपरी चिंचवड महानगरपालिकेच्या पाणीपुरवठा विभाग सेक्टर २३ येथील
जलशुध्दीकरण केंद्र,से.२३ प्रकल्पास भेट देण्यास परवानगी देणेबाबत.

संदर्भ :- आपलेकडील फोनवरील बोलणे दिनांक २०/०७/२०२२ चे.

२/- उपरोक्त संदर्भिय पत्रात मागणी केलेनुसार ४ शिक्षक आणि ५० विद्यार्थ्यांना पिंपरी
चिंचवड महानगरपालिकेच्या पाणीपुरवठा विभागाचे सेक्टर २३ निगडी येथील जलशुध्दीकरण केंद्र
प्रकल्पास भेट देण्याकरीता खालीलप्रमाणे तारीख व वेळ निश्चित करण्यात येत आहे.

अ.क्र.	निश्चित केलेली तारीख	वेळ सकाळ / दुपार	फी
१	२६/०७/२०२२ एकदिवस ५० विद्यार्थी	सकाळी १०.०० वाजता	नियमानुसार


वरीलप्रमाणे हजर विद्यार्थ्यांप्रमाणे आमचे कार्यालयाशी संपर्क साधून फी आगाऊ
किंवा भेटीच्याच दिवशी निश्चित केलेल्या वेळेच्या अगोदर कार्यालयात जमा करावी. तसेच मागील
पानावरील अटी/शर्ती/ नियमावली आपले शाळा/कॉलेज/संस्थेवर बंधनकारक राहतील.

सबब, वरील प्रमाणे निश्चित केलेल्या तारखेस वेळेत विद्यार्थ्यांसह हजर राहून
जलशुध्दीकरण केंद्र प्रकल्पाची माहिती घेण्यास आपणांस परवानगी देण्यात येत आहे.




प्रत :- सुरक्षा विभाग

२/- सुरक्षेच्या दृष्टीने आवश्यक ती खबरदारी घ्यावी व उपायोजना करावी.


उपअभियंता

जलशुध्दीकरण केंद्र,से.२३,पा.पु.
पिंपरी चिंचवड महानगरपालिका
निगडी, पुणे -४११०४४.
ई मेल : wtp@pcmcindia.gov.in


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(कृपया माग पहा)




पिंपरी चिंचवड महानगरपालिका, पिंपरी ४११ ०१८
जलशुध्दीकरण केंद्र, से. २३, पाणीपुरवठा विभाग
प्रकल्प भेटीस येणा-या नागरीक/व्यक्ती/विद्यार्थी यांचेकरीता
अटी/शर्ती/नियमावली



1. इयता ७ वी पर्यंतच्या विद्यार्थ्यांना जलशुध्दीकरण केंद्र प्रकल्पास भेट देण्यास परवानगी देण्यात येणार नाही.
2. संपूर्ण प्रकल्पाचे भेटी दरम्यान शिक्षक/प्रोफेसर/विद्यार्थ्यांची सुरक्षेची संपूर्ण जबाबदारी संबंधित संस्था/शाळा/कॉलेज यांची राहिल.
3. जलकेंद्रातील गर्दी टाळणेच्या दृष्टीने कोणत्याही कारणास्तव एका वेळेस ५० पेक्षा जादा व्यक्तीना/विद्यार्थ्यांना प्रवेश मिळणार नाही.
4. सुरक्षेच्या कारणास्तव पाण्याच्या जवळ विशेषतः पाणी निवळण टाकी जवळून जाताना व्यक्तीनी/विद्यार्थ्यांनी रेलींग/ग्रीलला पकडून/धरून चालावे.
5. प्रत्येक ५० विद्यार्थ्यांमागे ४ शिक्षक/प्रोफेसर/सहकारीवर्ग असणे बंधनकारक राहिल.
6. जलशुध्दीकरण केंद्र प्रकल्पाचे आवारामध्ये कोणत्याही विद्यार्थ्यांना एकटे/मुले/मुली अथवा गुपने फिरण्यास मनाई राहिल. व तसे आढळल्यास तात्काळ संबंधित विद्यार्थ्यांना जलशुध्दीकरण केंद्राचे बाहेर काढले जाईल. तसेच संपूर्ण सहल/भेट तात्काळ पुर्णपणे थांबविण्यात येईल.
7. प्रकल्प भेटीचे वेळी मोबाईलसह/कॅमेरा तसेच कोणत्याही प्रकारची इलेक्ट्रॉनिक वस्तु/साधने प्रकल्पाचे आवारात आणण्यास मनाई राहिल.
8. कोणत्याही कारणास्तव दिलेल्या वेळेचे पालन करण्यास असमर्थ ठरलेल्या खाजगी शाळा/कॉलेज/संस्थांना भेट नाकारण्यात येईल.
9. खाजगी शाळा/कॉलेज/संस्थांनी नियोजित वेळेच्या आधीच हजर विद्यार्थ्यांची यादी व त्याप्रमाणे नियमानुसार फी भरण्याकरीता उपस्थित राहण्याची खबरदारी घ्यावी.
10. कोणतेही कारण न देता पुर्वपरवानगीने देण्यात आलेली भेट रहीत/रद्द करण्याचे अथवा पुढे ढकलण्याचे अधिकार पिंपरी चिंचवड महानगरपालिकेच्या पाणीपुरवठा विभागास राहिल.
11. वरील सर्व नियम/अटींचे पालन करण्याची संपूर्ण जबाबदारी ही संबंधित शाळा/कॉलेज/संस्थेवर असून त्यामध्ये निष्काळजीपणा अथवा दुर्लक्ष झाल्याचे आढळल्यास संबंधितांची भेट तात्काळ रद्द करण्यात येईल याची नोंद घ्यावी.




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