

Criterion 3 - Research, Innovations and Extension



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Prof. Dr. S. N. Dhole
M. Pharm., Ph. D.
Principal

PARENT SOCIETY :- PROGRESSIVE EDUCATION SOCIETY

Prof. Dr. G. R. Ekbote,
(M.S., M.N.A.M.S.) Chairman,
Business Council P.E. Society, Pune

CRITERIA III

Key indicator: 3.2. Innovation Ecosystem

3.2.2 Number of workshops/seminars/conferences including programs conducted on Research methodology, Intellectual property right and entrepreneurship during the last five years

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2022-23

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Sr.No.	Name of the workshop/ seminar/ conference	Number of Participants	Date	Pg No
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**PES MODERN COLLEGE OF
PHARMACY (FOR LADIES),
MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION SESSION OF
EXTRUDER AND SPHERONIZER**

**TRAINER
PRIYANKA S.SHINDE**

18-08-2022

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REPORT

The demonstration session of the Extruder and Spheronizer was organized on 18/08/2022, Thursday at 02:00 pm for students of Second Year M. Pharm. This session served as a platform for students to acquire knowledge about the latest trends and innovative techniques in pharmaceutical sciences. The demonstration aimed to provide an effective and developmental practice, ensuring students are familiar with new methodologies applicable in Formulation and Development, Research and Development, etc.

During this session, students were introduced to the fundamental concepts and applications of extrusion and spheronization. Additionally, a detailed explanation of the components of the Extruder and Spheronizer, along with their step-by-step operation, was provided.

The outcomes of the demonstration:

1. Students learned about the components of the Extruder and Spheronizer.
2. Students understood the techniques involved in extrusion and spheronization.
3. Students explored the applications of extrusion and spheronization.



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DEMONSTRATION OF EXTRUDER AND SPHERONIZER

Extrusion and Spheronization:

Extrusion and spheronization is a multi-step technique used to create uniform spherical pellets (spheroids) from a wet mass. This process is widely utilized in the pharmaceutical industry to develop controlled-release dosage forms, enhance flow properties, and ensure uniformity of the final product.

Principle of Extrusion and Spheronization:

The process involves extruding a wetted mass through a die to create cylindrical extrudates, which are then broken into smaller segments and rounded into spheres in a spheronizer. This method ensures high sphericity and uniform size distribution of the pellets, crucial for consistent drug release profiles.

The steps involved in extrusion and spheronization can be summarized as follows:

- **Mixing:** Combine the active pharmaceutical ingredient (API) with excipients and a binder solution to form a wet mass.
- **Extrusion:** Feed the wet mass into an extruder to produce cylindrical extrudates.
- **Spheronization:** Transfer the extrudates to a spheronizer, where they are broken into smaller segments and rounded into spheres.
- **Drying:** Dry the spherical pellets to remove any residual moisture.
- **Screening:** Screen the dried pellets to achieve the desired size distribution.



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Extruder and Spheronizer Equipment:

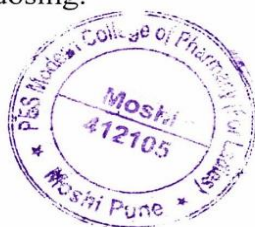
The main components of extruder and spheronizer equipment include:

- **Extruder:** Device used to push the wet mass through a die to form cylindrical extrudates. It typically includes a hopper, screw, and die plate.
- **Spheronizer:** A rotating plate with a grooved surface that breaks the extrudates into smaller segments and rounds them into spheres.
- **Mixer/Granulator:** Used to prepare the wet mass by combining the API, excipients, and binder solution.
- **Dryer:** Equipment used to remove moisture from the spherical pellets, such as a fluid bed dryer or tray dryer.
- **Sieve/Screeners:** Used to separate pellets based on size to ensure uniformity.

Applications of Extruder and Spheronizer:

Extrusion and spheronization are applied in a wide range of pharmaceutical applications, often used for the following products and processes:

- **Controlled-Release Formulations:** Creating pellets that release the drug at a controlled rate.
- **Taste Masking:** Encapsulating bitter drugs in spheroids to mask their taste.
- **Pelletization:** Producing pellets that can be filled into capsules or compressed into tablets.
- **Multi-Particulate Systems:** Developing dosage forms with multiple APIs in a single dosage unit.
- **Improved Flow Properties:** Enhancing the flow properties of powders and granules.
- **Uniform Drug Distribution:** Ensuring consistent drug content in each pellet for uniform dosing.



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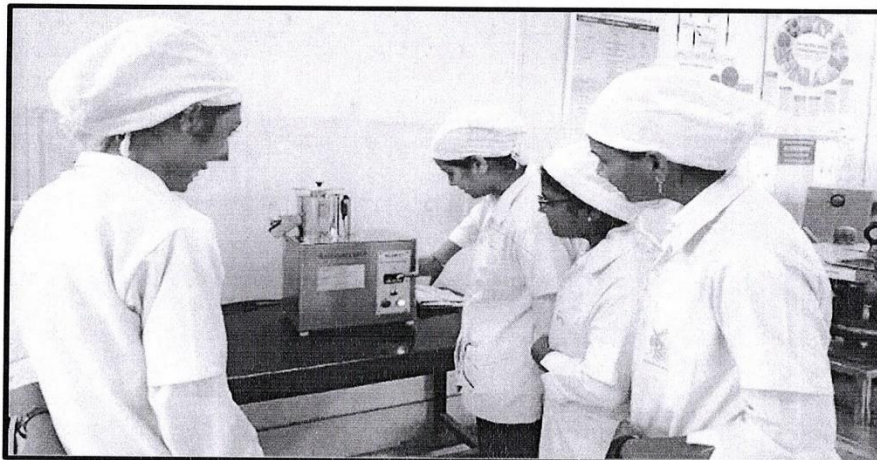
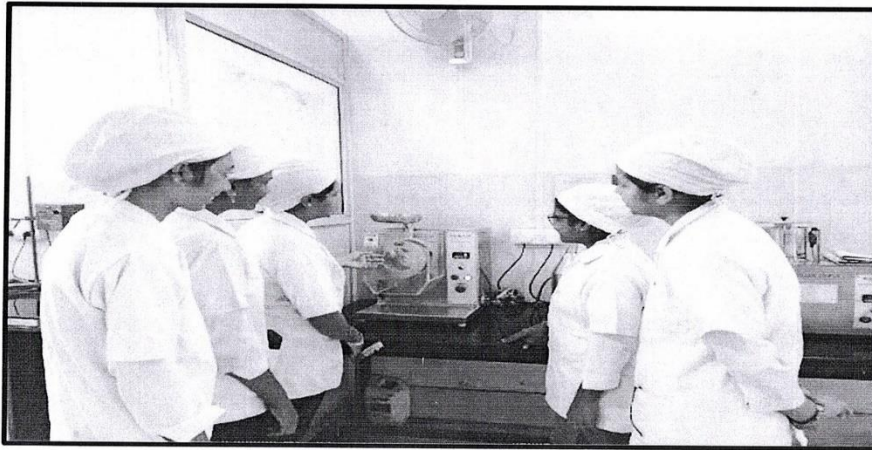


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Snapshot of Demonstration Session –



Demonstration of Extruder and Spheronizer on 18/08/2022

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ATTENDANCE SHEET

Class : M.Pharm Pharmaceutics

Extruder & Spheronizer

SR.NO	NAME OF STUDENT	SIGN
1	AUTADE NEHA B	<i>Autade N.B.</i>
2	BEDJAWALGE RUSHALI S	<i>Rushali</i>
3	BHANGARE RUTUJA G	<i>Bhangare</i>
4	BURAD SHRUTI H	<i>Shruti</i>
5	VALECHA SIMRAN G	<i>Simran</i>
6	HULJUTE SUPRIYA R	<i>Supriya</i>
7	KAWALE KOMAL A	<i>Komala</i>
8	KHARABI AISHWARYA J	<i>A</i>
9	MADNE SHIVANJALI S	<i>Shivanjali</i>
10	YADAV SIMRAN M	<i>Simran</i>
11	MARKAD KARISHMA U	<i>Karishma</i>
12	NARHARE HARSHDA S	<i>Harshada</i>
13	SHRANGARE JYOTI M	<i>Jyoti</i>
14	SWAMI DAKSHAYANI M	<i>D. Swami</i>
15	WADHOKAR ANJALI S	<i>Anjali</i>



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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION OF MICROWAVE OVEN**

**TRAINER
Rekha Bhalerao**

25-08-2022



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Demonstration on Microwave Oven

Academic Year 2022-2023

Date: 25/08/2022

A demonstration on microwave oven was conducted in chemistry lab 1.

For the demonstration a experiment of synthesis of ester from amino acid was selected.

Steps involve while using microwave oven

1. Push the main switch of electrical supply. A light comes on in the cavity and the blower makes a humming sound.
2. Make sure that the flask containing reaction mixture is placed in the right position.
3. This should be exactly above the magnetic stirrer.
4. Put magnetic needle & porcelain bits in the flask.
5. Select power level to change voltage, voltage can vary from 140 to 700 watt.
6. Time can increase by pressing time button in multiples of 1 Min & 5 Min.
7. Shut the door properly & press START. Your reaction has begun. The time display starts counting downwards.
8. To measure temperature, press STOP, open the door and dip the probe in solvent.
9. To stop the synthesizer press STOP or open the door.
10. While using this student should wear hand gloves.

Applications:

- Using microwave oven we can complete reaction within 5 to 10 min.
- Less amount of solvent needed to perform experiments using microwave oven.

R.A. Bhalerao
(Mrs. R. A. Bhalerao)



G.R. Ekbote

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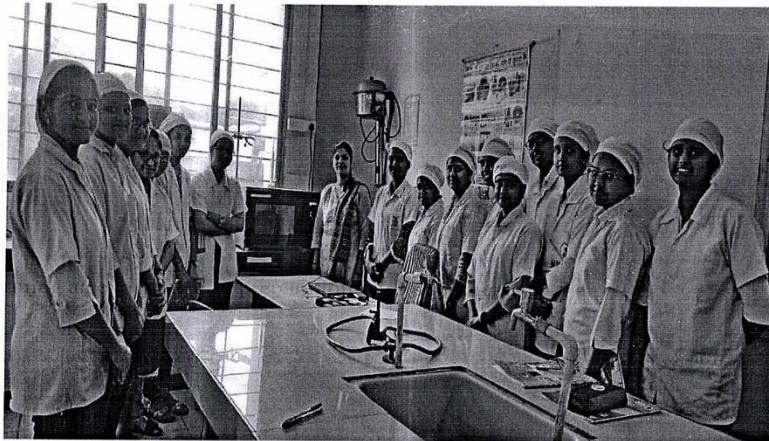
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Photos:



Performing an experiment of preparation of amino ester



Demonstration given for second year student



Demonstration of microwave oven on 25/08/2022

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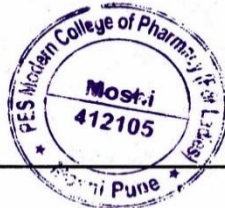
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Students present for demonstration of microwave oven

Roll No	Name	Sign	Roll No	Name	Sign
1	Atole Gauri	<i>(Signature)</i>	27	Falke Gitanjali B.	<i>(Signature)</i>
2	Amble Shruti Pramod	<i>(Signature)</i>	28	Gadekar Rachana B	<i>(Signature)</i>
3	Awale Sayali Hanumant	<i>(Signature)</i>	29	Gaikwad Rutuja V	<i>(Signature)</i>
4	Bachkar Sonali Bhmaji	<i>(Signature)</i>	30	Gaikwad Samruddhi S	<i>(Signature)</i>
5	Bagul Trupti Rajesh	<i>(Signature)</i>	31	Gavade Sanika Kalidas	<i>(Signature)</i>
6	Baskar Asvitha	<i>(Signature)</i>	32	Gaware Nikita K	<i>(Signature)</i>
7	Bawane Sanyukta S	<i>(Signature)</i>	33	Ghanwat Snehal	<i>(Signature)</i>
8	Bhangre Mrudula B	<i>(Signature)</i>	34	Gharge Mrunal	<i>(Signature)</i>
9	Bhavar Rutuja B	<i>(Signature)</i>	35	Ghodke Vaishnavi	<i>(Signature)</i>
10	Bhilare Tejasvini Kiran	<i>(Signature)</i>	36	Gosavi Mansi	<i>(Signature)</i>
11	Bhosale Gautami G	<i>(Signature)</i>	37	Harke Gayatri Sunil	<i>(Signature)</i>
12	Bhosale Saroj	<i>(Signature)</i>	38	Hule Sarthi Rajendra	<i>(Signature)</i>
13	Biradar Shradda S	<i>(Signature)</i>	39	Ingole Pooja Pramod	<i>(Signature)</i>
14	Birle Vaishnavi Sachin	<i>(Signature)</i>	40	Jadhav Akansha J	<i>(Signature)</i>
15	Chaudhary Zainab G	<i>(Signature)</i>	41	Jadhav Ketaki Pratap	<i>(Signature)</i>
16	Dadas Vaishnavi Dhanaji	<i>(Signature)</i>	42	Jawanjal Purva S	<i>(Signature)</i>
17	Dasarwar Pranita	<i>(Signature)</i>	43	Kadam Smita Poapt	<i>(Signature)</i>
18	Dhadge Sharli Ravindra	<i>(Signature)</i>	44	Kale Anushka Shrikant	<i>(Signature)</i>
19	Dhas Pratiksha	<i>(Signature)</i>	45	Kale Dnyaeshwari K	<i>(Signature)</i>
20	Dhokane Aastha Sunil	<i>(Signature)</i>	46	Kale Prachi Bhagavan	<i>(Signature)</i>
21	Dhole Akanksha S	<i>(Signature)</i>	47	Kamble Sakshi Anand	<i>(Signature)</i>
22	Dhole Siddhi Bhausheb	<i>(Signature)</i>	48	Kanode Shweta Sanjay	<i>(Signature)</i>
23	Dhormare Radha Avinash	<i>(Signature)</i>	49	Kapale Anushree A	<i>(Signature)</i>
24	Dhumal Mayuri D	<i>(Signature)</i>	50	Kashid Snehal Papat	<i>(Signature)</i>
25	Dhumane Isha Anand	<i>(Signature)</i>	51	Katore Purva Rajendra	<i>(Signature)</i>
26	Doke Rutuja Jalindra	<i>(Signature)</i>	52	Kedari Payal Narayan	<i>(Signature)</i>



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Students present for demonstration of microwave oven

Roll No	Name	Sign	Roll No	Name	Sign
53	Kedari Vaishali Mohan	<i>Vaishali</i>	79	Pachpande Tanmayee A	<i>Tanmayee</i>
54	Khaire Srushti Navnath	<i>Srushti</i>	80	Padwal Monika Ganesh	<i>Monika Padwal</i>
55	Kharabi Siddhi Rahul	<i>Siddhi Kharabi</i>	81	Panchbhai Ovee Balraj	<i>Panchbhai Ovee</i>
56	Khule Pallavi Ashok	<i>Pallavi Khule</i>	82	Pande Kanchan Manohar	<i>Kanchan Pande</i>
57	Kobal Sakshi Uttam	<i>Sakshi</i>	83	Pardeshi Vaishnavi Sudarshan	<i>V. Pardeshi</i>
58	Konde Khushi Amol	<i>Khushi Konde</i>	84	Patil Kalika Raosaheb	<i>Kalika</i>
59	Kshirsagar Pratiksha D	<i>Pratiksha</i>	85	Patil Deepali	<i>Deepali</i>
60	Kumbhar Divya M	<i>Divya Kumbhar</i>	86	Patil Indrayani Vijay	<i>Indrayani</i>
61	Lande Trupti Nilesh	<i>Trupti Lande</i>	87	Patil Mansi Prashant	<i>Mansi Patil</i>
62	Lohar Rutuja Deepak	<i>Rutuja</i>	88	Patil Vaishnavi Dinesh	<i>Vaishnavi Patil</i>
63	Magar Swamini C	<i>Swamini</i>	89	Punde Kshitija Rajendra	<i>Kshitija</i>
64	Mali Mansi Sachin	<i>Mansi</i>	90	Rathod Radhika	<i>Radhika Rathod</i>
65	Mali Vaishnavi B	<i>Vaishnavi</i>	91	Rathod Sonali	<i>Sonali Rathod</i>
66	Mane Nayan V	<i>Nayan</i>	92	Reddy Aishwaraya Vishnu	<i>Aishwaraya</i>
67	Mane Shreya Mahesh	<i>Shreya</i>	93	Roundhal Akanksha	<i>Akanksha</i>
68	Manjare Pratiksha I	<i>Pratiksha</i>	94	Sahare Kamini	<i>Kamini</i>
69	Marade Yogita V	<i>Yogita</i>	95	Sakpal Trupti Sudhir	<i>Trupti Sakpal</i>
70	Mehasare Gayatri R	<i>Gayatri</i>	96	Salunke Vaishnavi Gitraj	<i>Vaishnavi Salunke</i>
71	Mohite Chaitali	<i>Chaitali</i>	97	Sapate Tanuja Vagambar	<i>Tanuja Sapate</i>
72	Mohite Rakhi Rajesh	<i>Rakhi Mohite</i>	98	Satkar Sakshi Kalidas	<i>Sakshi Satkar</i>
73	Momin Nida B	<i>Nida Momin</i>	99	Satpute Jayshri	<i>Jayshri</i>
74	More Sneha Santosh	<i>Sneha More</i>	100	Sawant Neha Vithal	<i>Neha</i>
75	Navgire Janhavi Y	<i>Janhavi</i>	101	Sawant Riya	<i>Riya</i>
76	Nikam Akansha	<i>Akansha</i>	102	Sawant Shraddha Chandrkant	<i>Shraddha Sawant</i>
77	Nikam Shruti	<i>Shruti</i>	103	Shenavi Tanyee Pravin	<i>Tanyee</i>



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M. Pharm., Ph. D.
Principal

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**PES MODERN COLLEGE OF
PHARMACY (FOR LADIES),
MOSHI, PUNE**



WORKSHOP ON

**DEMONSTRATION OF TRINOCULAR
MICROSCOPE**

**TRAINER
Pallavi Kakade**

25-08-2022



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Report

The demonstration session of trinocular microscope was arranged on 25/08/2022, Friday at 03:00 pm for students of final Year B. Pharm.

This demonstration session served as a platform for students to gather knowledge of pharmaceutical sciences with emerging trends and innovative approaches. The demonstration session is taken as an effective and developmental practice to ensure that students will aware of novel approaches which can be used in Formulation and development, Research and Development etc.

In this demonstration session, comprehensive overview of trinocular microscopes, highlighting their components, applications, advantages, and significance in various fields. The enhanced imaging capabilities and versatility make them a valuable asset in both research and practical applications.

The outcome of the demonstration:

1. Students learnt the components of Trinocular microscopes
2. Students understood high-quality visual observations while simultaneously recording images makes them indispensable for research, diagnostics, and quality control.
3. Students studied applications of Trinocular microscopes



PGK

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Demonstration of Trinocular microscopes

Introduction

A trinocular microscope is a sophisticated optical instrument used extensively in biological, medical, and industrial fields. Unlike traditional microscopes, it features three eyepieces—two for binocular viewing and one for attaching a camera or other recording devices. This configuration allows simultaneous viewing and image capturing, making it invaluable for detailed analysis and documentation.

Components and Design

The key components of a trinocular microscope include:

1. **Optical Head:** The trinocular head comprises two eyepieces for binocular viewing and a third port for camera attachment. This design facilitates both direct observation and digital recording simultaneously.
2. **Objective Lenses:** Typically, these microscopes come with multiple objective lenses (4x, 10x, 40x, and 100x), offering a range of magnifications.
3. **Stage:** The stage is where the specimen is placed. It usually features mechanical controls for precise movement.
4. **Illumination System:** An integrated light source, often LED or halogen, provides the necessary illumination. Adjustable intensity controls enhance viewing clarity.
5. **Focusing Mechanism:** Coarse and fine focus knobs allow for sharp and precise focusing of the specimen.

Applications

Trinocular microscopes are widely used in various fields due to their versatility and advanced features:

- **Biological Research:** Enables detailed observation of cellular structures, microorganisms, and tissues.
- **Medical Diagnostics:** Assists in examining blood samples, pathogens, and histological specimens.
- **Industrial Inspection:** Used for inspecting materials, components, and quality control in manufacturing processes.
- **Educational Purposes:** Essential in teaching laboratories for demonstrating microscopic observations and techniques.

Advantages

The primary advantages of a trinocular microscope include:

- **Enhanced Imaging:** The third eyepiece allows for the attachment of high-resolution cameras, facilitating documentation and analysis.
- **Versatility:** Suitable for a wide range of applications across different fields.
- **Simultaneous Viewing and Recording:** Enables real-time observation and digital capturing without the need to switch between modes.
- **Ergonomics:** Designed to reduce eye strain during prolonged use, with adjustable interpupillary distance and comfortable eyepieces.



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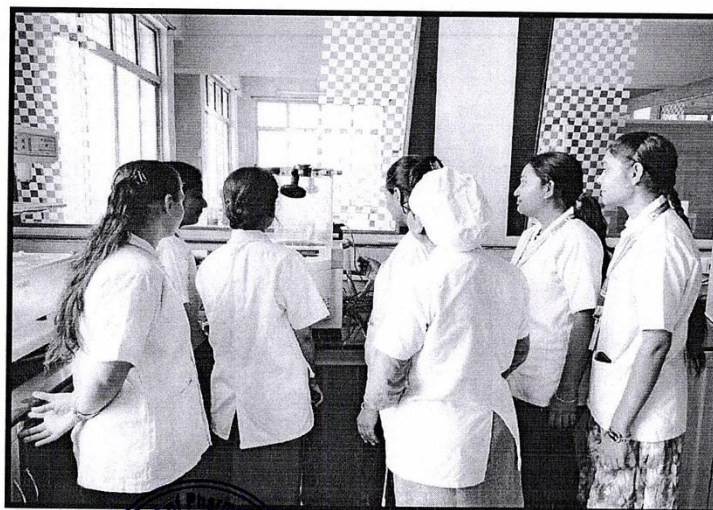


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Snapshots of Demonstration Session:



RF/PGK



[Signature]
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Tal. Haveli, Dist. Pune-412 105

Demonstration of trinocular microscope on 25/08/2022

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Demonstration of Binocular Microscope

PES's, Modern college of Pharmacy For Ladies, Moshi Pune Final Year B. Pharm Roll Call List 2022-2023							
Roll No	Name	Roll No	Name	Roll No	Name	Roll No	Name
1.	Abhang Rutuja	24	Gaikwad Tejaswini	47	Kumbhar Siddhi		
2.	Alhat Vaishnavi	25	Game Rohini Sunil	48	Kumbhare Shivani		
3.	Bachhav Shubhangi	26	Gawade Susmita	49	Lokhande Sayali		
4.	Bagade Shruti Sharad	27	Gaware Akshada	50	Mahanavar Pratiksha		
5.	Bagul Ruchita Sahebrao	28	Gengaje Tejal S.	51	Mankari Vaishnavi		
6.	Bhakre Shubhada	29	Girase Hiral B.	52	Mhetre Ankita		
7.	Borade Smita Yuvraj	30	Goswami Priyanka	53	More Janhavi Vivek		
8.	Borhade Deepali Sudam	31	Gowda Aishwarya	54	Musale Shravani		
9.	Bute Bhavana	32	Gurav Bhakti Santosh	55	Nagare Ashvini Dinkar		
10.	Chavan Namrata	33	Jadhav Sakshi	56	Narkhede Shruti Vijay		
11.	Chavan Prerna Vijay	34	Jagatap Shraddha	57	Narwade Komal		
12.	Chikhale Neha	35	Jagtap Samruddhi	58	Nimbargi Virakshi		
13.	Chinchansure Vaishnavi	36	Jalsakare Nikita	59	Pandit Anisha Gulabrao		
14.	Choudhari Aishwarya	37	Joshi Ketki Kedar	60	Pansare Snehal		
15.	Dahiwal Samruddhi	38	Kad Neha Ulhas	61	Patil Harshada Maruti		
16.	Dawn Suchismita Amit	39	Kamble Pooja Babu	62	Pawar Rutuja Santosh		
17.	Devadkar Snehal	40	Kamble Shashvati	63	Phartale Anisha Rajendra		
18.	Dhadge Aaditi Jalindar	41	Karpe Vaishnavi	64	Phatangare Akanksha		
19.	Dhokare Priya	42	Khalure Ambika Sanjay	65	Pikle Prajakta Kashinath		
20.	Dhumase Punam	43	Khedkar Shivani	66	Pole Ahilya Jaywant		
21.	Dongarkar Sanskruti	44	Kokane Varsha Shivaji	67	Rahane Achal Kailas		
22.	Gadhawe Mayuri	45	Kolhe Vaishnavi Vijay	68	Raksh Sakshi Hanumant		
23.	Gadilkar Mrunmayee	46	Kumavat Aditi	69	Raut Pratiksha Nilkhant		



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GUEST LECTURE ON Entrepreneurship, Creativity and Innovation



Special Speaker

Mr. Suresh B. Umap
Retired Government
Official

18/10/2022

Venue: Seminar Hall

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Ref No. MML/ (4) / 636 - A

Date 15/10/2022

To,
Mr. Suresh H. Umap
Shivmudra Innovative Foundation,
Founder and Chairman,
CEO, MCID
Pune - 411044

Subject: Invitation as Delegate for Entrepreneur Guest lecture on "Entrepreneurship, Creativity and Innovation"

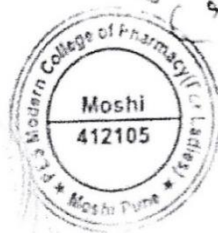
Respected Sir,

On behalf of PES Modern College of Pharmacy for Ladies, Moshi, we feel privilege to invite you as delegate for Guest Lecture "Entrepreneurship, Creativity and Innovation" on 18th Oct. 2022 at 11am. Your gracious presence will act as a catalyst and inspire all of us. I hope you will honor us by accepting our request.

Thanking you

Sincerely,

Dr. S.N. Dhole



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(M.S., M.N.A.M.S.) Chairman,
Business Council P.E. Society, Pune

Date: 15/10/2022

To,

Mr. Suresh B. Umap
Shivmudra Innovative Foundation,
Founder and Chairman,
CEO, MCED
Pune - 411041

Subject: Thanking Letter

Dear Mam,

We are pleased that, you have accepted our request for Entrepreneur Lecture in our college. Kindly accept our sincere appreciation for the outstanding presentation you made to PES Modern College of Pharmacy for Ladies Moshi, on "Entrepreneurship, Creativity and Innovation" On 18th Oct 2022. It was very interesting to hear about your experience.

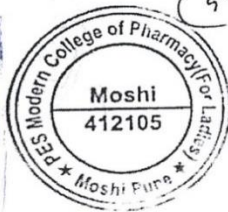
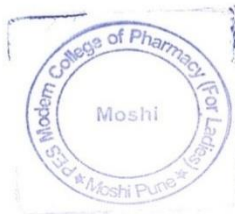
Thank you so much for sharing your valuable time with us. We all agreed that your lecture was the most exciting we had this year.

Thanking you,

Recd
Dhole
(S.N.Dhole)

Dr. Dhole S.N.

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Summary Report on Entrepreneur Development Programme

On

“Entrepreneurship, Creativity, Innovation”

Resource Person: Mr. Suresh B. Umap

Organized by: PES Modern college of Pharmacy for Ladies, Moshi in collaboration with
Maharashtra Centre for Entrepreneurship Development (MCED)

Conducted on: 18/10/2022

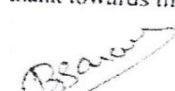
The entrepreneurship development programme (EDP) was organized by PES Modern College of Pharmacy for Ladies to promote entrepreneurship in Pharmacy students on 18th October 2022 at 11am for D. Pharmacy, B. Pharmacy, M. Pharmacy students.

The topics for the programme was “Entrepreneurship, Creativity, and Innovation”. The programme has started with the felicitation of Chief Guest by Dr. S.N. Dhole, PES Modern College of Pharmacy for ladies, Moshi. The introduction of Guest was given by our D. Pharm student Ms. Shweta Borahte

Mr. Suresh Umap has discussed about Entrepreneurial Mind set, Entrepreneurial Qualities, Govt. Support and Schemes. He also trained students, how to look into the challenges the society is facing currently and how it can dealt in an entrepreneurial way. He also discussed about Introduction to Entrepreneurship, Motivation & Personality issues of Entrepreneurship, Business Opportunity Identification, Business Plan & Project Preparation, Financial Aspects of Entrepreneurship, and Technical Aspects

The participants expressed and demonstrated positive attitude towards entrepreneurship and expressed plans to start ventures in the near future. The participants were made aware with funding agencies to explore entrepreneurship ventures with appropriate business plans.

A total number of 120 students participated in the program. The sessions was informative and well appreciated by the participants. At the end of the programme Ms. Gayatri Garad delivered the vote of thank towards the guest.


Guest Lecture I/C



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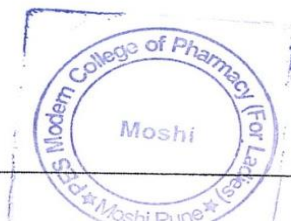
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Guest Lecture I/C

Dr. S. N. Dhole



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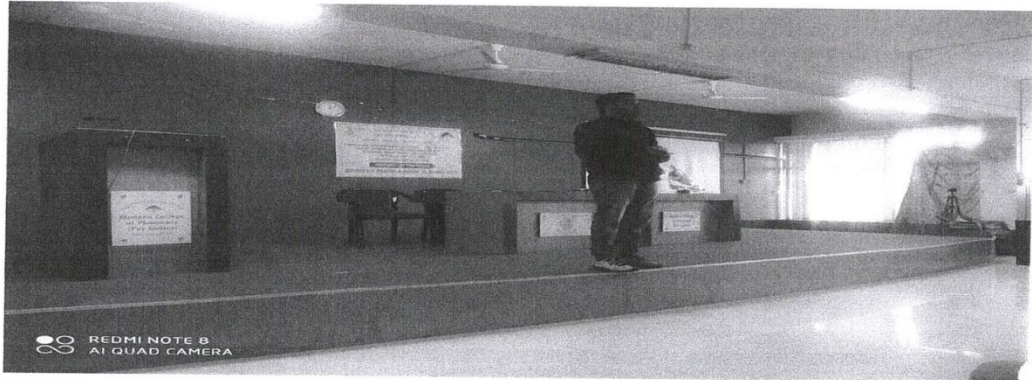
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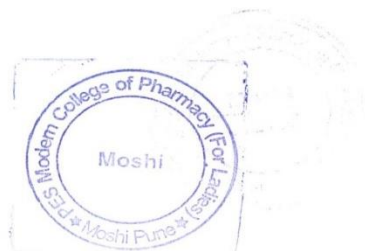
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Mr. Suresh B. Umap Retired Government Official delivering lecture on entrepreneurship



Guest lecture by Suresh Umap on 18/10/2022

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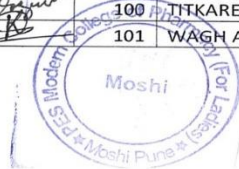
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Roll No	Name of Student	Roll No	Name of Student
1	ABHANG SANIKA SUNIL	61	MHASKE VAISHNAVI ANIL
2	AGRAVAT KHUSHUBU NARENDRABHAI	62	MHETRE SHIVANI BHAGWAN
3	ALAT SNEHAL NAVNATH	63	MUNDFANE RUTUJA SHASHIKANT
4	ARADKAR SUPRIYA DATTATRAY	64	MURKUTE VAISHNAVI GAJANAN
5	ASOLE SANIKA MUNJAJI	65	NANEKAR KSHITIJA BABURAO
6	BANGAR MRUNALINI BAPU	66	NANGARE SHRDDHA RAJESH
7	BHANDAKKAR RASIKA SUNIL	67	NETKE SAKSHI ANIL
8	BHANDARE MANASWI LAXMAN	68	NILE VAISHNAVI RAMAKANT
9	BHANUSHALI ZEEL HARESH	69	PARMAR RIDDHI BHARAT
10	BHOSKAR RUTUJA DNYANESHWAR	70	PATIL AAKANKSHA RAJENDRA
11	BHUSALE RACHANA SHIVJI	71	PATIL ANISH VIJAY
12	BIRADAR AARATHI MADHAVRAO	72	PATIL NIKITA SURAJ
13	BUTTE SIDDHI SOMNATH CHAUDHARY SHFAQ HAFIZURREHMAN	73	PATIL PRIYANKA TANAJI
14	CHAVAN TULSI SURYKANT	74	PATIL SAYALI SANTOSH
15	CHAVHAN CHANDA RAM	75	PAWAR JANHVI NITIN
16	CHAVHAN LAXMI ANIL	76	PHAKATKAR SANSKRUTI SANDIP
17	DAMSE SNEHAL VILAS	77	PHATANGARE ANJALI ANIL
18	DATHE SAMIKSHA PANDHARINATH	78	PHUGE TANVI PRAVIN
19	DEOKAR JYOTI NAVNATH	79	POTGHAN SAMRUDDHI GORAKHNATH
20	DESHMUKH VASIHNAVI VILAS	80	RATHOD SHREYA KRISHNA
21	DESPANDE VASUDHA RAM	81	SALVE POOJA VIJAY
22	DHAWADE SAKSHI NITIN	82	SANKPAL RUTUJA CHANDRKANT
23	DHORAN SAMIKSHA SANJAY DODAMANISHAIKH MUSKAN FAKRUDDIN	83	SARODE TRUPTI SANTOSH
24	GADEKAR SNEHAL PUNDLIK	84	SARWADNYA JYOTI DIPAK
25	GHARGE DIVYA RAJKUMAR	85	SASTE DHANASHREE RAJENDRA
26	GHONGE AKSHADA HIRAMAN	86	SAYYAD ASIYA FARUK
27	GOPAL VAIBHAVI BANDU	87	SHAIKH ALPHIYA IBRAHIM
28	GOVARDHAN SAYALI RAJESH	88	SHAIKH MUSKAN AJIJ
29	GURAV PRACHI MAHADEV	89	SHINGADE MUKTA MADHUKAR
30	HANDE JAYSHRI PRASHANT	90	SHINDE ANJALI SANJAY
31	HARGUDE VAIBHAVI BABASAHEB	91	SHINDE PRADIPTI PRASHANT
32	HOLE NIKITA NITIN	92	SHINDE SANIYA MAHENDRA
33	JADHAV SAE SUDHIR	93	SHINGADE SHRUTI VILAS
34	JADHAV HARSHADA ANIL	94	SING PRIYA VINOD
35	JADHAV ISHWARI AMOL	95	SONAWALE MRUNAL SURAJ
36	JADHAV MADHURA RAMCHANDRA	96	SONTAKKE SHREYA MADHAV
37	JADHAV SONALI SANJAY	97	SURYAWANSHI AASAVARI DATTATRAYA
38	JAGATAP SHRUTI DNYANESHWAR	98	SURYAWANSHI RAHEL LAXMAN
39	JICKAR KALYANI VIJAY	99	TALELE PRANALI MANOJKUMAR
40		100	TITKARE NIKITA ARUN
41		101	WAGH AKANKSHA DATTATRY



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Principal

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Business Council P.E. Society, Pune

42	KADAM NISHIGANDHA NISHANT	<i>Adar</i>	102	WAGH NAMRATA GAJANAN	<i>(Noted)</i>
43	KALBOR VINAYA GANESH	<i>Vinay</i>	103	WAGH VAISHNAVI BALASAHEB	<i>Vinay</i>
44	KALE RUTUJA GANPAT		104	WAGHULE SHRUTI MILIND	<i>Shruti</i>
45	KALE RUTUJA PRASHANT	<i>Prashant</i>	105	WALLI DHARNA DHANANJAY	<i>Dhar</i>
46	KAMBLE SANIKA SIDDHARTH	<i>Sid</i>	106	WAWGE YUKTA VISHNU	<i>Yukta</i>
47	KANGHARE SANIYA SANDEEP	<i>Sanika</i>	107	YADAV SANIKA PRAMOD	<i>Sanika</i>
48	KASHID AMRUTA SADGURU	<i>Amruta</i>	108	YADAV SHRADDHA SOMNATH	<i>Shraddha</i>
49	KATRE TEJASWINI HEMRAJ		109	YADAV VAISHNAVI VITTHAL	<i>Vaishnavi</i>
50	KENDALE SHAMAL SANTOSH	<i>Shamal</i>	110	YELAVE AARTI JOTIRAM	<i>Aarti</i>
51	KHAIRNAR JANHAVI PRASHANT	<i>Janhavi</i>	111	YEOLA GEETANJALI VIJAY	<i>Geeta</i>
52	KHAMKAR PALLAVI SHIVAJI	<i>PSK</i>	112	ZANJAD SHRUTIKA SANTOSH	<i>Shrutika</i>
53	KHAN KHAIRUNNISA MOHAMMAD AYYUB				
54	KHAN HEENA ABDULKALIQE				
55	KHANDELWAL EKTA RITESH				
56	KHARDE GAURI LALSING	<i>Gilchane</i>			
57	LANDGE KIRAN RAMAKANT	<i>Kiran</i>			
58	LANGHI SWAPNALI DATTU	<i>Swapna</i>			
59	LAWARE PORNIMA SURESH	<i>Pornima</i>			
60	MAHAJAN DISHA KIRAN				



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PES, Modern college of Pharmacy For Ladies, Moshi Pune S. Y. B. Pharm 2022-2023								
Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign
1.	Amble Shruti Pramod		25	Gadekar Rachana B		49	Khule Pallavi Ashok	
2.	Awale Sayali Hanumant		26	Gaikwad Rutuja V		50	Kobal Sakshi Uttam	
3.	Bachkar Sonali Bhmaji		27	Gaikwad Samruddhi S		51	Konde Khushi Amol	
4.	Bagul Trupti Rajesh		28	Gavade Sanika Kalidas		52	Kshirsagar Pratiksha D	
5.	Baskar Asvitha		29	Gaware Nikita K		53	Kumbhar Divya M	
6.	Bawane Sanyukta S		30	Harke Gayatri Sunil		54	Lande Trupti Nilesh	
7.	Bhangre Mrudula B		31	Hule Sarthi Rajendra		55	Lohar Rutuja Deepak	
8.	Bhavar Rutuja B		32	Ingole Pooja Pramod		56	Magar Swamini C	
9.	Bhilare Tejasvini Kiran		33	Jadhav Akansha J		57	Mali Mansi Sachin	
10.	Bhosale Gautami G		34	Jadhav Ketaki Pratap		58	Mali Vaishnavi B	
11.	Biradar Shraddha S		35	Jawanjal Purva S		59	Mane Nayan V	
12.	Birle Vaishnavi Sachin		36	Kadam Smita Poapt		60	Mane Shreya Mahesh	
13.	Chaudhary Zainab G		37	Kale Anushka Shrikant		61	Manjare Pratiksha I	
14.	Dadas Vaishnavi Dhanaji		38	Kale Dnyaeshwari K		62	Marade Yogita V	
15.	Dahate Esha Vinod		39	Kale Prachi Bhagavan		63	Mehasare Gayatri R	
16.	Dhadge Sharli Ravindra		40	Kamble Sakshi Anand		64	Mohite Rakhi Rajesh	
17.	Dhokane Aastha Sunil		41	Kanode Shweta Sanjay		65	Momin Nida B	
18.	Dhole Akanksha S		42	Kapale Anushree A		66	More Sneha Santosh	
19.	Dhole Siddhi Bhaushab		43	Kashid Snehal Popat		67	Navgire Janhavi Y	
20.	Dhormare Radha Avinash		44	Katore Purva Rajendra		68	Pacharne Charuta P	
21.	Dhumal Mayuri D		45	Kedari Payal Narayan		69	Pachpande Tanmayee A	
22.	Dhumane Isha Anand		46	Kedari Vaishali Mohan		70	Padwal Monika Ganesh	
23.	Doke Rutuja Jalindra		47	Khairi Srushti Navnath		71	Panchbhai Ovee Balraj	
24.	Falke Gitanjali B.		48	Kharabi Siddhi Rahul		72	Pande Kanchan Manohar	

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PES, Modern college of Pharmacy For Ladies, Moshi Pune
S. Y. B. Pharm 2022-2023

Roll No	Name	Sign	Roll No	Name	Sign
73	Pardeshi Vaishnavi Sudarshan	<i>Pardeshi</i>	97	Thorat Vaishnavi Vijay	<i>Thorat</i>
74	Patil Kalika Raosaheb	<i>Kalika</i>	98	Thorbole Shradha Satish	<i>Thorbole</i>
75	Patil Indrayani Vijay	<i>Indrayani</i>	99	Tikudwe Samidha Hanmantrao	<i>Samidha</i>
76	Patil Mansi Prashant	<i>Mansi</i>	100	Tirkunde Madhavi Shrirang	<i>Madhavi</i>
77	Patil Vaishnavi Dinesh	<i>Vaishnavi</i>	101	Vishwakarma Sakshi Lalji	<i>Sakshi</i>
78	Punde Kshitija Rajendra	<i>Kshitija</i>	102	Wagdare Falguni Ram	<i>Falguni</i>
79	Reddy Aishwaraya Vishnu	<i>Reddy</i>	103	Waghmare Ragini Madhav	<i>Ragini</i>
80	Roundhal Akanksha	<i>Akanksha</i>	104	Walwate Manisha Shivaji	<i>Manisha</i>
81	Sakpal Trupti Sudhir	<i>Trupti</i>	105	Wavhal Sakshi Satosh	<i>Sakshi</i>
82	Salunke Vaishnavi Gitraj	<i>Salunke</i>	106	Yadav Kumkum Bachelal	<i>Kumkum</i>
83	Sapate Tanuja Vagambar	<i>Sapate</i>	107	Yadav Salone Sanjay	<i>Salone</i>
84	Satkar Sakshi Kalidas	<i>Satkar</i>	108	Yelwande Ankit Dattatray	<i>Ankit</i>
85	Sawant Neha Vithal	<i>Sawant</i>	109	Zagade Janhavi Machindra	<i>Janhavi</i>
86	Sawant Shradha Chandrakant	<i>Shradha</i>	019	Shetkar Sayali	<i>Shetkar</i>
87	Shenavi Tanyee Pravin	<i>Shenavi</i>	017	Shinde Swati	<i>Shinde</i>
88	Shetty Diya	<i>Shetty</i>	018	Amal - Harsh	<i>Amal</i>
89	Sonar Sakshi Rahendra	<i>Sonar</i>	017	Ghodke Vaishnavi Mahadev	<i>Ghodke</i>
90	Sonavane Vipashana Prashant	<i>Sonavane</i>	020	Gosavi Mansi	<i>Gosavi</i>
91	Sukre Sanika Kailas	<i>Sukre</i>	06	Minjal Ghangra	<i>Minjal</i>
92	Suryawanshi Prerana Sanjay	<i>Prerana</i>	05	Shehal Ghanwat	<i>Shehal</i>
93	Talekar Tejal Suhas	<i>Talekar</i>	09	Nikam Akanksha	<i>Nikam</i>
94	Talpade Arya Ajay	<i>Talpade</i>	08	Mohite Chaitali	<i>Mohite</i>
95	Temkar Maya Uttam	<i>Temkar</i>	010	Nikam Shwanti	<i>Nikam</i>
96	Thorat Rutuja Arun	<i>Thorat</i>	016	Riya Sawant	<i>Riya</i>

D1 - Atole Gauri Tanaji
D4 - Dhas Pratiksha
D9 - Dhaswar Pranita



D15 - Jayashri Satjule
D12 - Radhika Rathod
D13 - Sonali Rathod
D14 - Sahase Kamini
D11 - Deepa Patil

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T. Y. B. Pharm Roll Call List 2022-2023 (Sem V)														
Division A-Roll No.1 to 63							Division B-Roll No.64 to 126							
Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign
BATCH A			BATCH B			BATCH C			BATCH D			BATCH E		
1	Gayatri Aade	<i>Gade</i>	27	Sanika Dhore	<i>S.Dhore</i>	53	Urwashi Jagdale	<i>U.Jagdale</i>	78	Sneha Pansare	<i>S.Pansare</i>	103	Vaibhavi Umap	<i>V.Umap</i>
2	Adalinge Bhagyashri	<i>Adalinge</i>	28	Shital Dindewad	<i>S.Dindewad</i>	54	Supriya Kadbhane	<i>S.Kadbhane</i>	79	Pratibha Parhad	<i>P.Parhad</i>	104	Srushti Vidhate	
3	Shraddha Adhav	<i>S.Adhav</i>	29	Akanksha Doiphode	<i>A.Doiphode</i>	55	Shital Kardile	<i>S.Kardile</i>	80	Nikita Parve		105	Prachi Wadekar	<i>P.Wadekar</i>
4	Rucha Akanikar	<i>R.Akanikar</i>	30	Harshada Dolare	<i>H.Dolare</i>	56	Pranjal Katkar	<i>P.Katkar</i>	81	Janhavi Pasmе		106	Vaishali Wagh	<i>V.Wagh</i>
5	Rutuja Ankushe	<i>R.Ankushe</i>	31	Sakshi Gade	<i>S.Gade</i>	57	Manisha Kevat	<i>M.Kevat</i>	82	Sakshi Pathare	<i>S.Pathare</i>	107	Sakshi Waghmare	
6	Akansa Arekar	<i>A.Arekar</i>	32	Nikita Gadhave	<i>N.Gadhave</i>	58	Pratiksha Kimbahune	<i>P.Kimbahune</i>	83	Bhagyashri Patil	<i>B.Patil</i>	108	Vaishnavi Waghmare	
7	Misba Attar	<i>M.Attar</i>	33	Vaibhavi Gandhi	<i>V.Gandhi</i>	59	Pratiksha Kothawale	<i>P.Kothawale</i>	84	Kirti Patil	<i>K.Patil</i>	109	Tanaya Walse	<i>T.Walse</i>
8	Varsha Bangar		34	Shweta Gatkal	<i>S.Gatkal</i>	60	Rutika Kshirsagar	<i>R.Kshirsagar</i>	85	Vaishnavi Patil	<i>V.Patil</i>	110	Sejal Walunj	<i>S.Walunj</i>
9	Pratiksha Bhandarkar	<i>P.Bhandarkar</i>	35	Anjali Gautam	<i>A.Gautam</i>	61	Vaishnavi Labade	<i>V.Labade</i>	86	Akshata Pawar	<i>A.Pawar</i>	111	Bhakare Mayuri	
10	Nandini Bhavsar	<i>N.Bhavsar</i>	36	Arati Gavali	<i>A.Gavali</i>	62	Pranjal Landge	<i>P.Landge</i>	87	Priyanka Pharate	<i>P.Pharate</i>	112	Bhangale Vrushali	<i>V.Vrushali</i>
11	Varsha Bhilare		37	Pranali Gavate	<i>P.Gavate</i>	63	Pranjal Lokhande	<i>P.Lokhande</i>	88	Divya Rane	<i>D.Rane</i>	113	Bijiasampada	<i>B.Bijiasampada</i>
12	Akshata Bhor	<i>A.Bhor</i>	38	Harshada Gaware	<i>H.Gaware</i>	64	Kalyani Madake	<i>K.Madake</i>	89	Prachi Ranjane		114	Borate Nikita	<i>N.Borate</i>
13	Sayali Bhor	<i>S.Bhor</i>	39	Priti Ghenand	<i>P.Ghenand</i>	65	Utkarsha Mahajan	<i>U.Mahajan</i>	90	Ankita Rathod		115	Choudhary Payal	<i>P.Choudhary</i>
14	Aishwarya Bhole	<i>A.Bhole</i>	40	Prachiti Ghodake	<i>P.Ghodake</i>	66	Gayatri Mahamuni	<i>G.Mahamuni</i>	91	Divya Rathod	<i>D.Rathod</i>	116	Date varsha	<i>V.Date</i>
15	Mrunmayi Bhosale	<i>M.Bhosale</i>	41	Rutuja Ghundare	<i>R.Ghundare</i>	67	Ashwini Mohite	<i>A.Mohite</i>	92	Prajakta Salunke	<i>P.Salunke</i>	117	Gavle shruti	
16	Manaswi Bhurkud	<i>M.Bhurkud</i>	42	Vedanti	<i>V.Vedanti</i>	68	Sayali More	<i>S.More</i>	93	Anagha Saste		118	Jadhav jyoti	<i>J.Jadhav</i>



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Business Council P.E. Society, Pune

17	Bushra Bagwan	43	Gulhane Vaishnavi Gupta	69	Shravani Mule	94	Siddhi Sawal	119	Jaiswal Janhavi
18	Priya Chauhan	44	Anuja Gurav	70	Anushka Nagare	95	Aishwarya Selsurekar	120	KabneAkankasha
19	Aishwarya Choudhari	45	Sakshi Gurav	71	Pratiksha Nale	96	Aditi Shevkari	121	Manekar Sharayu
20	Ashwini Dafal	46	Anjali Hande	72	Prerana Nandkhile	97	Harshita Singh	122	Mavkar Rutuja
21	Anushka Deokar	47	Kadambari Hankare	73	Renuka Padavale	98	Rutuja Sonawane	123	Pawar Nikita
22	Sakshi Devsatwar	48	Sakshi Hiwale	74	Suman Padwal	99	Siddhi Sonawane	124	Salunkhe Sakshi
23	Aditi Dhanawade	49	Sakshi Holkunde	75	Amita Pakhare	100	Vaishnavi Sutar	125	Salve devyani
24	Nikita Dhanawate	50	Neha Jadhav	76	Pradnya Palaskar	101	Pranjal Taware	126	Sangade varsha
25	Dhanshri Dhawale	51	Pooja Jadhav	77	Kalyani Pandit	102	Punam Thigale	127	Saste Neha
26	Ritika Dhonge	52	Pallavi Jadhavar			104	Vaibhavi Umap		



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PES MODERN COLLEGE OF PHARMACY
(FOR LADIES), MOSHI, PUNE



Workshop On Demonstration of All Purpose Equipment



Date: 03/11/2022

Criterion 3 - Research, Innovations and Extension



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Date: 03/11/2022

DEMONSTRATION OF ALL PURPOSE EQUIPMENT

The All – Purpose equipment is ideal for small scale production in the pharmaceutical, chemical, cosmetic & food industries. It fits perfectly in to research & developments of tablets, ointments, creams & more.

Following steps to be followed while handling:

- I. Insert the mains cord in the power socket provided at the back panel of the main drive.
- II. Depending on the experiment kindly attach particular accessory either to the main drive directly or else through universal gear box depending on the type of accessory.
Note: Dry granulator, planetary mixer, homogenizer or triple roller mill can be attached directly to the main drive whereas remaining accessories can be attached through universal gear box
- III. After attaching the particular accessory to the shaft of the universal gear box, please tighten the screw by using provided L key.
Note: Make sure that the accessory is properly attached to the main drive and or to the universal gear box, otherwise the respective accessory may slip from the gear box while performing the experiment, also ensure that the lid of particular accessory is tightened properly.
- I. The control panel is provided with **EMERGENCY** switch to stop all the ongoing operations in case of emergency or any problem.
- II. Switch on the instrument by unlocking the **EMERGENCY** switch by rotating it in clockwise direction.
- III. Now as per the requirement set the operating mode of the all purpose equipment
- IV. Set the various parameters such as Speed, Temperature & Timer as per requirement & operating mode selected.
- V. To stop the experiment in manual mode as well as in auto mode, kindly press the stop key gently.
- VI. After completing the experiment, kindly rotated the speed controller knob toward zero position.
- VII. Prior to removing the accessory from the universal gear box or else from main drive, make sure that the instrument is set at OFF position or switched off.
- VIII. In case of spraying gun, always clean the nozzle of gun by spraying the solvent of the coating solution used and clean the nozzle thoroughly otherwise there are chances of blocking of the nozzle of the gun. (OPTIONAL ATTACHMENT)



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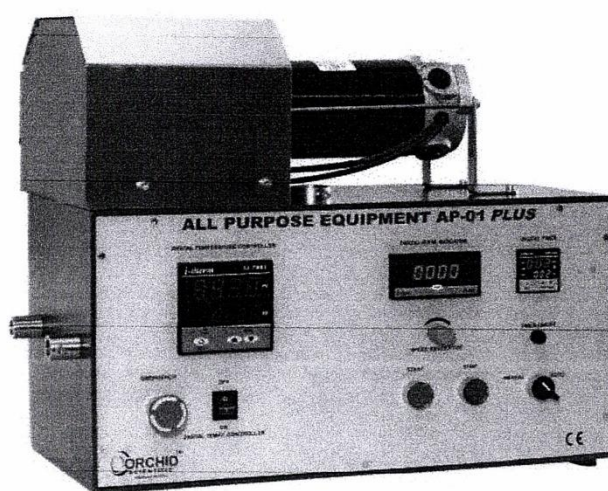
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A. Introduction:

The All Purpose Equipment consists of a main drive. Various accessories like Ball Mill, Double Cone Blender, Coating Pan, Polishing pan, V blender, Cube mixer can be attached to main drive through universal gear box while accessories like Dry granulator and Triple roller mill can be attached directly to the main drive.



B. Main Drive:

The horizontal main drive is completely maintenance free. The main drive consists of 0.50 H.P., single phase AC motor. The speed of motor can be controlled by AC motor drive in the range of 10 to 300 rpm depending up to the accessories attached.

The main drive has following features:

- Digital SPEED indicator: range 10 to 300 rpm
- Digital Timer: 999 mins
- Digital temperature controller: 5°C above ambient to 150 °C
- Hot air pipe for coating pan
- Emergency switch
- Auto or Manual mode
- start/stop switch for motor control



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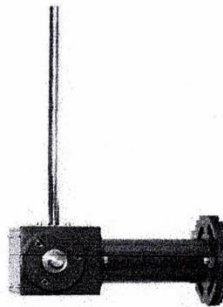
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(M.S., M.N.A.M.S.) Chairman,
Business Council P.E. Society, Pune

C. Attachments:

a. Universal Gear Box:

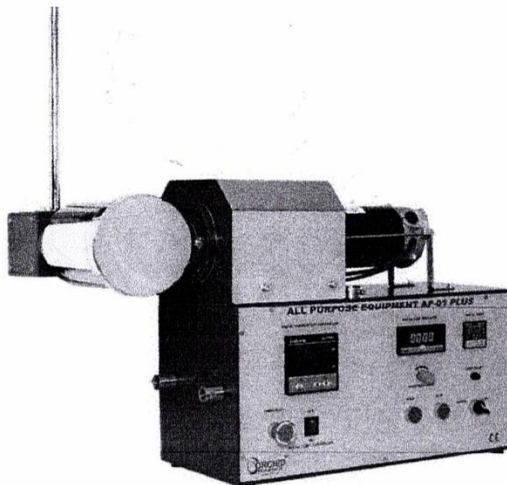
Accessories like Ball Mill, Double Cone Blender, and Coating Pan, Polishing pan, V blender & Cube mixer can be attached to the main drive through universal gear box only.



Prior to using the attachment with universal gear box kindly adjust the operating angle with respect to the main drive. The universal gear box allows adjusting the angle of operation from 0 to 60 degrees.

b. Ball Mill:

Ball mill is mainly used for grinding the crystalline material, for mixing dry material. Ball mill jar is made of S.S.



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Demonstration of All Purpose Equipment on 03/11/2022

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S. Y. B. Pharm 2022-2023								
Hands on training – All purpose equipment								
Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign
1	Atole Gauri		27	Falke Gitanjali B.		53	Kedari Vaishali Mohan	
2	Amble Shruti Pramod		28	Gadekar Rachana B		54	Khaire Srushti Navnath	
3	Awale Sayali Hanumant		29	Gaikwad Rutuja V		55	Kharabi Siddhi Rahul	
4	Bachkar Sonali Bhmajji		30	Gaikwad Samruddhi S		56	Khule Pallavi Ashok	
5	Bagul Trupti Rajesh		31	Gavade Sanika Kalidas		57	Kobal Sakshi Uttam	
6	Baskar Asvitha		32	Gaware Nikita K		58	Konde Khushi Amol	
7	Bawane Sanyukta S		33	Ghanwat Snehal		59	Kshirsagar Pratiksha D	
8	Bhangre Mrudula B		34	Gharge Mrunal		60	Kumbhar Divya M	
9	Bhavar Rutuja B		35	Ghodke Vaishnavi		61	Lande Trupti Nilesh	
10	Bhilare Tejasvini Kiran		36	Gosavi Mansi		62	Lohar Rutuja Deepak	
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17	Dasarwar Pranita		43	Kadam Smita Poapt		69	Marade Yogita V	
18	Dhadge Sharli Ravindra		44	Kale Anushka Shrikant		70	Mehasare Gayatri R	
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81	Panchbhai Ovee Balraj	<i>Ovee Panchbhai</i>	106	Shinde Swati	<i>Shinde</i>
82	Pande Kanchan Manohar	<i>Pande Kanchan</i>	107	Sonar Sakshi Rahendra	<i>Sakshi</i>
83	Pardeshi Vaishnavi Sudarshan	-	108	Sonavane Vipashana Prashant	<i>Vipashana</i>
84	Patil Kalika Raosaheb	<i>Kalika</i>	109	Sukre Sanika Kailas	<i>Sukre</i>
85	Patil Deepali	-	110	Suryawanshi Prerana Sanjay	<i>Prerana</i>
86	Patil Indrayani Vijay	<i>Indrayani</i>	111	Talekar Tejal Suhas	<i>Tejal</i>
87	Patil Mansi Prashant	<i>Mansi</i>	112	Talpade Arya Ajay	<i>Arya</i>
88	Patil Vaishnavi Dinesh	<i>Vaishnavi</i>	113	Temkar Maya Uttam	<i>Maya</i>
89	Punde Kshitiya Rajendra	<i>Kshitiya</i>	114	Thakur Anjali	<i>Anjali</i>
90	Rathod Radhika	<i>Radhika</i>	115	Thorat Rutuja Arun	<i>Rutuja</i>
91	Rathod Sonali	<i>Sonali</i>	116	Thorat Vaishnavi Vijay	<i>Vaishnavi</i>
92	Reddy Aishwaraya Vishnu	<i>Reddy</i>	117	Thorbole Shradha Satish	<i>Shradha</i>
93	Roundhal Akanksha	-	118	Tikudwe Samidha Hanmantrao	<i>Samidha</i>
94	Sahare Kamini	<i>Kamini</i>	119	Tirkunde Madhavi Shrirang	<i>Madhavi</i>
95	Sakpal Trupti Sudhir	<i>Trupti</i>	120	Vishwakarma Sakshi Lalji	<i>Sakshi</i>
96	Salunke Vaishnavi Gitraj	<i>Vaishnavi</i>	121	Wagdare Falguni Ram	<i>Falguni</i>
97	Sapate Tanuja Vagambar	<i>Sapate</i>	122	Waghmare Ragini Madhav	<i>Ragini</i>
98	Satkar Sakshi Kalidas	<i>Satkar</i>	123	Walwate Manisha Shivaji	<i>Manisha</i>
99	Satpute Jayshri	-	124	Wavhal Sakshi Satosh	<i>Sakshi</i>
100	Sawant Neha Vithal	<i>Neha</i>	125	Yadav Kumkum Bachelal	<i>Kumkum</i>
101	Sawant Riya	<i>Riya</i>	126	Yadav Salone Sanjay	<i>Salone</i>
102	Sawant Shradha Chandrakant	<i>Shradha</i>	127	Yelwande Ankita Dattatray	<i>Ankita</i>
103	Shenavi Tanyee Pravin	<i>Tanyee</i>	128	Zagade Janhavi Machindra	<i>Zagade</i>



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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION OF BROOKFIELD VISCOMETER**

**TRAINER
CHAITALI C. DONGAONKAR**

14-01-2023





Date:14/01/2023

Report

Introduction: The demonstration of the Brookfield viscometer was conducted to educate students on the principles and applications of viscosity measurement in various industries. The session provided a comprehensive understanding of how the instrument works and its importance in ensuring product quality and consistency.

Equipment and Setup: The demonstration utilized a Brookfield viscometer, which is widely recognized for its accuracy and reliability in measuring the viscosity of liquids. The setup included the viscometer itself, a selection of spindles, and various samples of liquids with different viscosities. The students observed how the viscometer was prepared for use, including calibration and spindle selection based on the type of liquid being tested.

Procedure: The instructor began by explaining the theoretical background of viscosity and its significance in both industrial and laboratory settings. The principles of operation of the Brookfield viscometer were outlined, highlighting the rotational method used to measure the resistance of a liquid to shear.

The demonstration proceeded with the following steps:

1. **Calibration:** The viscometer was calibrated using a standard reference fluid to ensure accurate measurements. Students observed the importance of calibration in maintaining the precision of the instrument.
2. **Sample Preparation:** Different liquid samples, including oils, syrups, and gels, were prepared. The instructor emphasized the need for homogeneous samples to obtain reliable viscosity readings.
3. **Spindle Selection:** Depending on the viscosity range of the samples, appropriate spindles were chosen. The instructor explained how spindle geometry affects the measurement and the importance of selecting the correct spindle for accurate results.
4. **Measurement:** Each sample was measured by immersing the spindle into the liquid and allowing the viscometer to record the viscosity. The students noted the digital display readings and observed the changes as different spindles and speeds were used.
5. **Data Recording:** The recorded viscosity values were discussed, and the students were shown how to interpret the results. The instructor also



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explained how factors such as temperature and shear rate could influence viscosity measurements.

Conclusion: The demonstration effectively illustrated the operation and significance of the Brookfield viscometer in various applications. The students gained hands-on experience and a deeper understanding of viscosity measurement, including the practical considerations involved in using the instrument. The session concluded with a Q&A, where students clarified their doubts and discussed the applications of viscosity measurements in real-world scenarios.

Overall, the demonstration was a valuable educational experience, reinforcing theoretical knowledge with practical insights and enhancing the students' appreciation for the role of viscometers in quality control and research.



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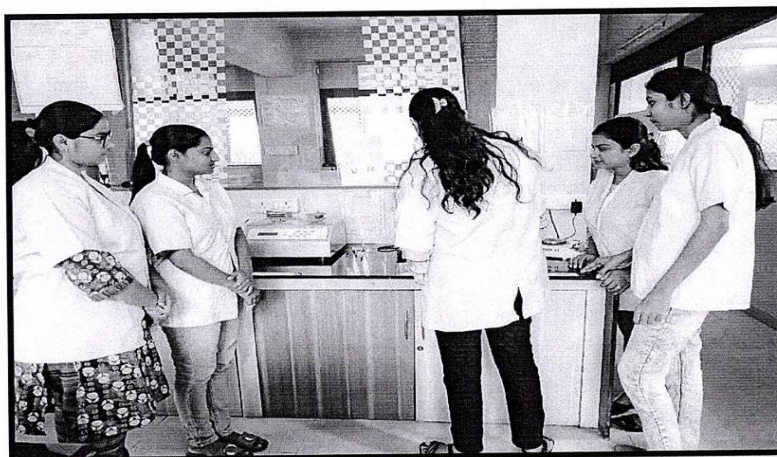
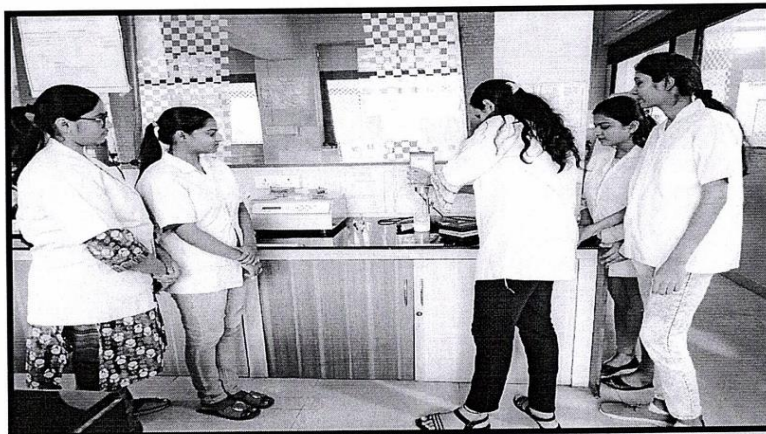



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Snapshots of Demonstration Session:




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(For Ladies)
Borhadewadi, At/Post-Moshi,
Tal. Haveli, Dist. Pune-412 105.

Demonstration of Brookfield Viscometer on 14/01/2023

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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION SESSION ON LYOPHILIZER**

**TRAINER
CHAITALI C. DONGAONKAR**

21-01-2023



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Date:21/01/2023

Report

Introduction: The demonstration session of the Lyophilizer was arranged for students to enhance their knowledge of pharmaceutical sciences through emerging trends and innovative approaches. This session served as an effective educational practice, ensuring that students become familiar with novel methods used in formulation and development, research and development, and other related fields.

Demonstration Details: During the session, the overall concept and applications of freeze drying were explained to the students. This was followed by a detailed introduction to the components of the Lyophilizer and a step-by-step explanation of its operation. The primary objective was to provide a comprehensive understanding of the freeze-drying process, also known as lyophilization.

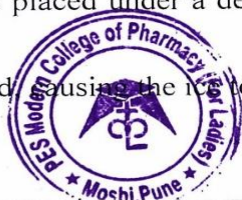
Outcomes of the Demonstration:

1. Students learned about the components of the Lyophilizer.
2. Students understood the techniques of lyophilization.
3. Students explored the various applications of lyophilization.

Freeze Drying: Freeze drying, or lyophilization, is the process of removing ice or other frozen solvents from a material through sublimation and removing bound water molecules through desorption. This method is critical for preserving heat-sensitive materials such as proteins, microbes, pharmaceuticals, tissues, and plasma. Controlled freeze-drying ensures that the product temperature remains low enough to prevent changes in the dried product's appearance and characteristics.

Sublimation Process: Sublimation occurs when a solid (ice) changes directly to vapor without passing through the liquid phase. This phase change requires heat energy. The freeze-drying process involves the following steps:

1. **Freeze** - The product is completely frozen, typically in a vial, flask, or tray.
2. **Vacuum** - The product is placed under a deep vacuum, below the triple point of water.
3. **Dry** - Heat energy is added, causing the ice to sublime.



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Steps in Lyophilization:

1. Pretreatment/Formulation
2. Loading into Containers (Bulk, Flask, Vials)
3. Freezing (Thermal Treatment) at atmospheric pressure
4. Primary Drying (Sublimation) under vacuum
5. Secondary Drying (Desorption) under vacuum
6. Backfill & Stoppering (for vials) under partial vacuum
7. Removal of the Dried Product from the Freeze Dryer

Lyophilizer Equipment Components:

1. Refrigeration System
2. Vacuum System
3. Control System
4. Product Chamber or Manifold
5. Condenser

Applications of Lyophilization: Freeze drying is used for preserving a wide range of substances without altering their composition. In aseptic pharmaceutical and biotechnology production, lyophilization is applied to:

- Antibiotics
- Bacteria
- Vaccines
- Hormones
- Vitamins, enzymes, and peptides
- Liposomes and collagen
- Plant and liver extracts
- Radio-immune assays



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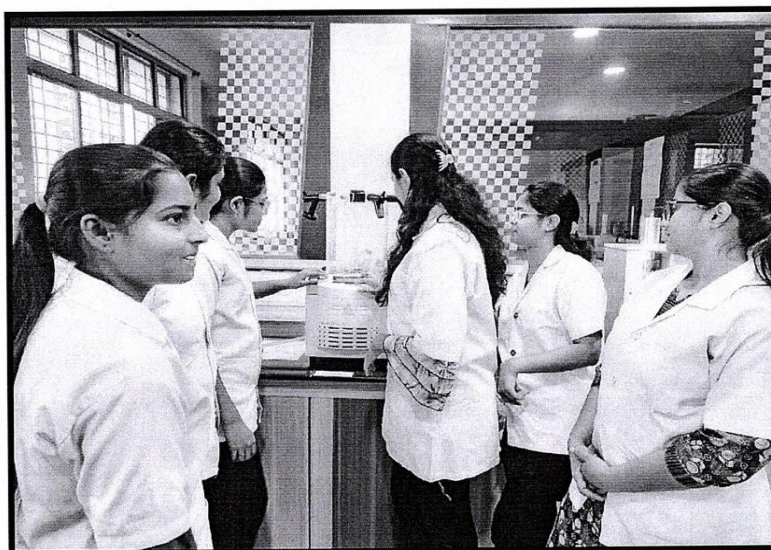
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- Blood plasma, plasma fractions, and antibodies

Conclusion: The demonstration session provided students with valuable insights into the components, techniques, and applications of lyophilization. This knowledge equips them with the understanding necessary to utilize freeze-drying methods effectively in pharmaceutical and biotechnological contexts.

Snapshots of Demonstration Session:



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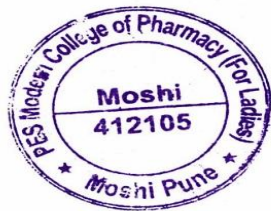
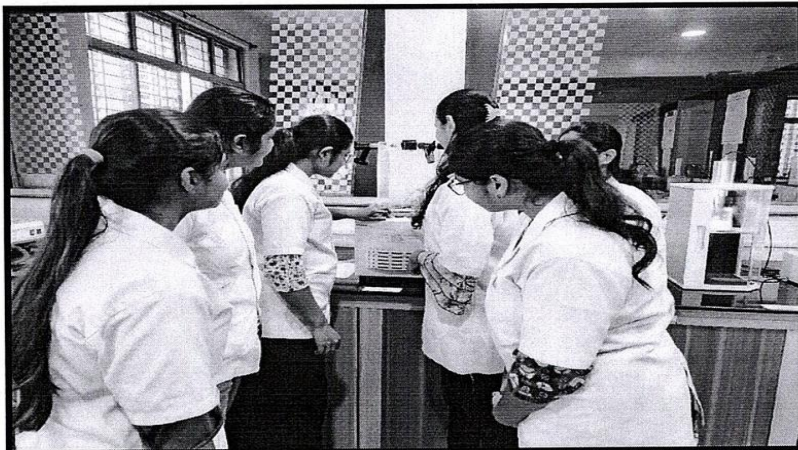
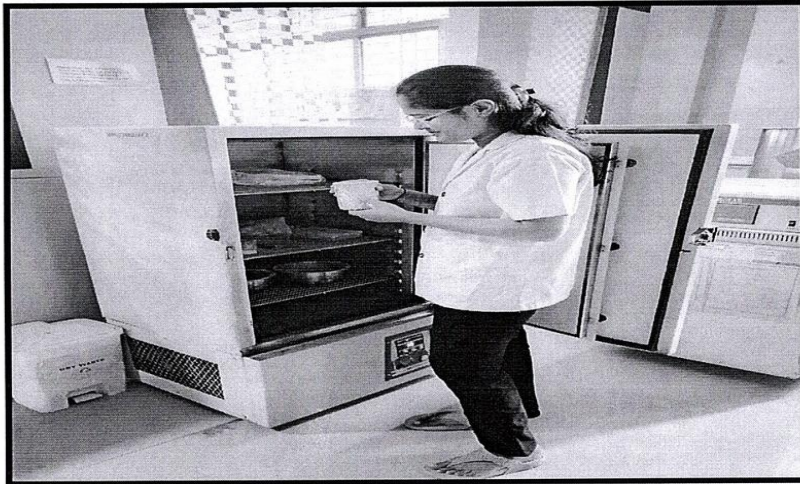
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Demonstration of Lyophilizer on 21/01/2023

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ATTENDANCE Lyophilizer

Sr. No.	Name of Student	Sign
1.	Vaishnavi Eknath Bhosle	<i>Vaishnavi</i>
2.	Nilu Choudhary	<i>Nilu</i>
3.	Suvarna prasadi Gore	<i>Suvarna</i>
4.	Rutuja suresh jitkare	<i>Rutuja</i>
5.	Nikita Peavin kapare	<i>Nikita</i>
6.	Priyanka Suresh shinde	<i>Priyanka</i>
7.	Pratiksha Siddharth Waghmare	<i>Pratiksha</i>
8.	Chaitali C. Dongaonkar	<i>Chaitali</i>
9.	Shradha Sandeep Todkar	<i>Shradha</i>
10.	Pooja Sudamrao Munjal	<i>Pooja</i>
11.	Kakade Pallavi Gautam	<i>Kakade</i>
12.	Jidnyasa Parag Bhirud	<i>Jidnyasa</i>
13.	Divya Sanjay Choure	<i>Divya</i>
14.	Pratiksha sathin Londhe	<i>Pratiksha</i>
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**PES MODERN COLLEGE OF
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**WORKSHOP ON
DEMONSTRATION OF HPLC**

**TRAINER
Mr Kiran Nawale**

23-12-2022

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TRAINING CERTIFICATE

This is to certify that the following personnel of Modern college of Pharmacy (For ladies), Moshi, Pune will be using Shimadzu p-series HPLC Systems with PDA detector have been trained by certified technician authorized by Shimadzu Corporation on the following subjects.

- 1) Basic fundamentals of HPLC/UPLC
- 2) Equipment Setup
- 3) Labsolutions Software
- 4) Maintenance and troubleshooting of Instrument

Trainer: Mr. Kiran Nawale (Workflow Specialist)

Signature:

Date : 23rd December 2022

List of Trainees:

S/N	Name	Designation	E-Mail ID	Mob. No.	Sign
1	Dr. Vijaya Vichare	Asso. Professor	Vicharevijaya11@gmail.com	9049086245	
2	Mrs. Soniya Ausekar	Lab Assistant	NA	NA	
3	Miss. Dhanshri Borchate	Student	NA	NA	
4	Miss. Nilam Jankar	Student	NA	NA	



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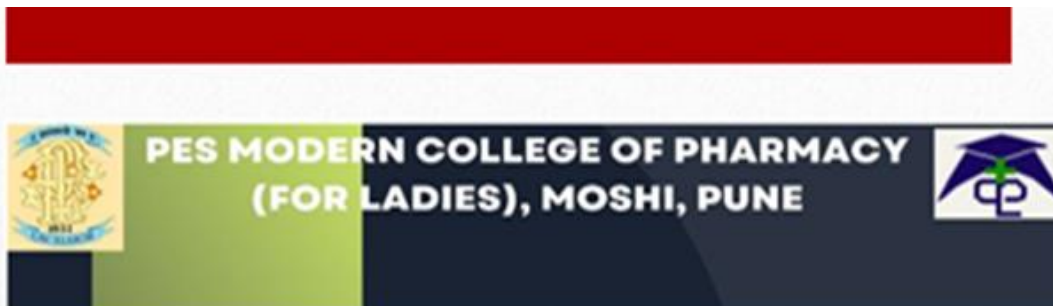
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Workshop on Demonstration of Plethysmometer

Trainer: Atre Bhagyashree

Date: 03/02/2023

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A demonstration of digital Plethysmometer

Report

A demonstration session for the digital Plethysmometer was held on Friday, February 3rd, 2023, at 3:00 PM for third B. Pharm students. The session aimed to provide students with a comprehensive understanding of the instrument's principles, operation, and applications in pharmaceutical research. The Plethysmometer is a device used to measure changes in paw volume, often employed to assess inflammation. The hands-on experience, combined with theoretical knowledge, equips students with valuable skills for their future careers.

Objectives

- Familiarize students with the digital Plethysmometer and its components.
- Explain the working principles and mechanisms of the Plethysmometer.
- Demonstrate practical applications of the instrument in pharmaceutical research.
- Provide hands-on experience using the Plethysmometer to measure paw volume changes.
- Enhance understanding of data interpretation and analysis from Plethysmometer readings.

Principles of Digital Plethysmometer

The digital Plethysmometer measures volume changes in a paw, typically to assess edema, flow, or vascular function. Key principles include:

- Volume Displacement: The instrument measures the displacement of fluid caused by paw inflammation.
- Transducer Mechanism: Converts physical volume changes into electrical signals.
- Digital Readout: Provides precise measurements displayed on a digital screen.

Components of Digital Plethysmometer

- Measurement Chamber: Where the paw is placed for measurement.
- Transducer: Senses the volume change and converts it into an electrical signal.
- Amplifier: Increases the signal strength for improved accuracy.
- Digital Display: Shows the volume changes in readable units.
- Software Interface (optional): Allows for data recording, analysis, and storage.



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4. Hands-On Experience in Measuring Changes in Paw Volume

Through hands-on practice, students became proficient in setting up and using the Plethysmometer. They conducted measurements of paw volume, following procedures for calibration, baseline recording, and induced volume change. This experience built their confidence in using the instrument independently and accurately, reinforcing their practical skills.

5. Enhanced Understanding of Data Interpretation and Analysis

Students learned to interpret data from Plethysmometer readings effectively. They understood how to analyze changes in volume, considering physiological implications. This included recognizing patterns in data, calculating significant changes, and understanding the statistical relevance of their measurements. The ability to analyze and interpret data is crucial for their future research and professional work in pharmaceutical sciences.

Snapshots of Demonstration Session:



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Demonstration of Digital Plethysmometer on 03/02/2023

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Demonstration of digital plethysmometer.

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BATCH A			BATCH B			BATCH C		
1	Gayatri Aade	<i>Gayatri Aade</i>	27	Sanika Dhore	<i>Sanika Dhore</i>	53	Urwashi Jagdale	<i>Urwashi Jagdale</i>
2	Adalinge Bhagyashri	<i>Adalinge Bhagyashri</i>	28	Shital Dindewad	<i>Shital Dindewad</i>	54	Supriya Kadbhane	<i>Supriya Kadbhane</i>
3	Shraddha Adhav	<i>Shraddha Adhav</i>	29	Akanksha Doiphode	<i>Akanksha Doiphode</i>	55	Shital Kardiye	<i>Shital Kardiye</i>
4	Rucha Akanikar	<i>Rucha Akanikar</i>	30	Harshada Dolare	<i>Harshada Dolare</i>	56	Pranjal Katkar	<i>Pranjal Katkar</i>
5	Rutuja Ankushe	<i>Rutuja Ankushe</i>	31	Sakshi Gade	<i>Sakshi Gade</i>	57	Manisha Kevat	<i>Manisha Kevat</i>
6	Akansha Arekar	<i>Akansha Arekar</i>	32	Nikita Gadhawe	<i>Nikita Gadhawe</i>	58	Pratiksha Kimbahune	<i>Pratiksha Kimbahune</i>
7	Misba Attar	<i>Misba Attar</i>	33	Vaibhavi Gandhi	<i>Vaibhavi Gandhi</i>	59	Pratiksha Kothawale	<i>Pratiksha Kothawale</i>
8	Varsha Bangar	<i>Varsha Bangar</i>	34	Shweta Gatkal	<i>Shweta Gatkal</i>	60	Rutika Kshirsagar	<i>Rutika Kshirsagar</i>
9	Pratiksha Bhandarkar	<i>Pratiksha Bhandarkar</i>	35	Anjali Gautam	<i>Anjali Gautam</i>	61	Vaishnavi Labade	<i>Vaishnavi Labade</i>
10	Nandini Bhavsar	<i>Nandini Bhavsar</i>	36	Arati Gavali	<i>Arati Gavali</i>	62	Pranjal Landge	<i>Pranjal Landge</i>
11	Varsha Bhilare	<i>Varsha Bhilare</i>	37	Pranali Gavate	<i>Pranali Gavate</i>	63	Pranjal Lokhande	<i>Pranjal Lokhande</i>
12	Akshata Bhor	<i>Akshata Bhor</i>	38	Harshada Gaware	<i>Harshada Gaware</i>	64	Kalyani Madake	<i>Kalyani Madake</i>
13	Sayali Bhor	<i>Sayali Bhor</i>	39	Priti Ghenand	<i>Priti Ghenand</i>	65	Utkarsha Mahajan	<i>Utkarsha Mahajan</i>
14	Aishwarya Bhole	<i>Aishwarya Bhole</i>	40	Prachiti Ghodake	<i>Prachiti Ghodake</i>	66	Gayatri Mahamuni	<i>Gayatri Mahamuni</i>
15	Mrunmayi Bhosale	<i>Mrunmayi Bhosale</i>	41	Rutuja Ghundare	<i>Rutuja Ghundare</i>	67	Ashwini Mohite	<i>Ashwini Mohite</i>
16	Manaswi Bhurkud	<i>Manaswi Bhurkud</i>	42	Vedanti Gulhane	<i>Vedanti Gulhane</i>	68	Sayali More	<i>Sayali More</i>
17	Bushra Bagwan	<i>Bushra Bagwan</i>	43	Vaishnavi Gupta	<i>Vaishnavi Gupta</i>	69	Shravani Mule	<i>Shravani Mule</i>
18	Priya Chauhan	<i>Priya Chauhan</i>	44	Anuja Gurav	<i>Anuja Gurav</i>	70	Anushka Nagare	<i>Anushka Nagare</i>
19	Aishwarya Choudhari	<i>Aishwarya Choudhari</i>	45	Sakshi Gurav	<i>Sakshi Gurav</i>	71	Pratiksha Nale	<i>Pratiksha Nale</i>
20	Ashwini Dafal	<i>Ashwini Dafal</i>	46	Anjali Hande	<i>Anjali Hande</i>	72	Prerana Nandkhile	<i>Prerana Nandkhile</i>
21	Anushka Deokar	<i>Anushka Deokar</i>	47	Kadambari Hankare	<i>Kadambari Hankare</i>	73	Renuka Padavale	<i>Renuka Padavale</i>
22	Sakshi Devsatwar	<i>Sakshi Devsatwar</i>	48	Sakshi Hiwale	<i>Sakshi Hiwale</i>	74	Suman Padwal	<i>Suman Padwal</i>
23	Aditi Dhanawade	<i>Aditi Dhanawade</i>	49	Sakshi Holkunde	<i>Sakshi Holkunde</i>	75	Amita Pakhare	<i>Amita Pakhare</i>
24	Nikita Dhanawate	<i>Nikita Dhanawate</i>	50	Neha Jadhav	<i>Neha Jadhav</i>	76	Pradnya Palaskar	<i>Pradnya Palaskar</i>
25	Dhanshri Dhawale	<i>Dhanshri Dhawale</i>	51	Pooja Jadhav	<i>Pooja Jadhav</i>	77	Kalyani Pandit	<i>Kalyani Pandit</i>
26	Ritika Dhonge	<i>Ritika Dhonge</i>	52	Pallavi Jadhavar	<i>Pallavi Jadhavar</i>	78	Sneha Pansare	<i>Sneha Pansare</i>



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79	Pratibha Parhad	<i>Pratibha</i>	105	Prachi Wadekar	<i>Prachi</i>
80	Nikita Parve	<i>Nikita</i>	106	Vaishali Wagh	<i>Vaishali</i>
81	Janhavi Pasmе	<i>Janhavi</i>	107	Sakshi Waghmare	<i>Sakshi</i>
82	Sakshi Pathare	<i>Sakshi</i>	108	Vaishnavi Waghmare	<i>Vaishnavi</i>
83	Bhagyashri Patil	<i>Bhagyashri</i>	109	Tanaya Walse	<i>Tanaya</i>
84	Kirti Patil	<i>Kirti</i>	110	Sejal Walunj	<i>Sejal</i>
85	Vaishnavi Patil	<i>Vaishnavi</i>	111	Bhakare Mayuri	<i>Mayuri</i>
86	Akshata Pawar	<i>Akshata</i>	112	Bhangle Vrushali	<i>Vrushali</i>
87	Priyanka Pharate	<i>Priyanka</i>	113	BijjaSampada	<i>Bijja</i>
88	Divya Rane	<i>Divya</i>	114	Borate Nikita	<i>Nikita</i>
89	Prachi Ranjane	<i>Prachi</i>	115	Choudhary Payal	<i>Payal</i>
90	Ankita Rathod	<i>Ankita</i>	116	Date varsha	<i>Varsha</i>
91	Divya Rathod	<i>Divya</i>	117	Gavle Shruti	<i>Shruti</i>
92	Prajakta Salunke	<i>Prajakta</i>	118	Jadhav Jyoti	<i>Jyoti</i>
93	Anagha Saste	<i>Anagha</i>	119	Jaiswal Janhavi	<i>Janhavi</i>
94	Siddhi Sawal	<i>Siddhi</i>	120	KabneAkankasha	<i>Akankasha</i>
95	Aishwarya Selsurekar	<i>Aishwarya</i>	121	Manekar Sharayu	<i>Sharayu</i>
96	Aditi Shevkari	<i>Aditi</i>	122	Mavkar Rutuja	<i>Rutuja</i>
97	Harshita Singh	<i>Harshita</i>	123	Pawar Nikita	<i>Nikita</i>
98	Rutuja Sonawane	<i>Rutuja</i>	124	Salunkhe Sakshi	<i>Sakshi</i>
99	Siddhi Sonawane	<i>Siddhi</i>	125	Salve Devyani	<i>Devyani</i>
100	Vaishnavi Sutar	<i>Vaishnavi</i>	126	SangadeVarsha	<i>Varsha</i>
101	Pranjal Taware	<i>Pranjal</i>	127	Saste Neha	<i>Neha</i>
102	Punam Thigale	<i>Punam</i>			
103	Vaibhavi Umap	<i>Vaibhavi</i>			
104	Srushti Vidhate	<i>Srushti</i>			



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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION OF ASEPTIC AREA**

TRAINER

BHAGYASHRI S. PARANDE

15-02-2023



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Demonstration of Aseptic Area

Report

The demonstration session of Aseptic Area was arranged on 15/02/2023, Saturday at 10:00 am for students of Second Year B. Pharm. This demonstration session served as a platform for students to gather knowledge of pharmaceutical sciences with emerging trends and innovative approaches. The demonstration session is taken as an effective and developmental practice to ensure that students will be aware of novel approaches that can be used in Formulation and development, Research and Development, etc.

In this demonstration session, arrangements as well as applications of the Aseptic Area, are explained to students. Followed by an introduction of the entire components of the Aseptic Area and its stepwise working in detail.

The outcome of the demonstration:

1. Students learned the components of the Aseptic Area.
2. Students understood the role and importance of the Aseptic area in pharmaceutical industries.
3. Students understood different applications of Aseptic area

Snapshots of Demonstration Session:



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Demonstration of Aseptic area on 15/02/2023

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PES, Modern college of Pharmacy For Ladies, Moshi Pune
S. Y. B. Pharm 2022-2023
Hands on training – Aseptic area (Class 10000)

Roll No.	Name	Sign	Roll No.	Name	Sign	Roll No.	Name	Sign
1	Atole Gauri	[Signature]	27	Falke Gitanjali B.	[Signature]	53	Kedari Vaishali Mohan	[Signature]
2	Amble Shruti Pramod	[Signature]	28	Gadekar Rachana B	[Signature]	54	Khairi Srushti Navnath	[Signature]
3	Awale Sayali Hanumant	[Signature]	29	Gaikwad Rutuja V	[Signature]	55	Kharabi Siddhi Rahul	[Signature]
4	Bachkar Sonali Bhujaji	[Signature]	30	Gaikwad Samruddhi S	[Signature]	56	Khule Pallavi Ashok	[Signature]
5	Bagul Trupti Rajesh	[Signature]	31	Gavade Sanika Kalidas	[Signature]	57	Kobal Sakshi Uttam	[Signature]
6	Baskar Asvitha	[Signature]	32	Gaware Nikita K	[Signature]	58	Konde Khushi Amol	[Signature]
7	Bawane Sanyukta S	[Signature]	33	Ghanwat Snehal	[Signature]	59	Kshirsagar Pratiksha D	[Signature]
8	Bhangre Mrudula B	[Signature]	34	Gharge Mrunal	[Signature]	60	Kumbhar Divya M	[Signature]
9	Bhavar Rutuja B	[Signature]	35	Ghodke Vaishnavi	[Signature]	61	Lande Trupti Nilesh	[Signature]
10	Bhilare Tejasvini Kiran	[Signature]	36	Gosavi Mansi	[Signature]	62	Lohar Rutuja Deepak	[Signature]
11	Bhosale Gautami G	[Signature]	37	Harke Gayatri Sunil	[Signature]	63	Magar Swamini C	[Signature]
12	Bhosale Saroj	[Signature]	38	Hule Sarthi Rajendra	[Signature]	64	Mali Mansi Sachin	[Signature]
13	Biradar Shradda S	[Signature]	39	Ingole Pooja Pramod	[Signature]	65	Mali Vaishnavi B	[Signature]
14	Birle Vaishnavi Sachin	[Signature]	40	Jadhav Akansha J	[Signature]	66	Mane Nayan V	[Signature]
15	Chaudhary Zainab G	[Signature]	41	Jadhav Ketaki Pratap	[Signature]	67	Mane Shreya Mahesh	[Signature]
16	Dadas Vaishnavi Dhanaji	[Signature]	42	Jawanjal Purva S	[Signature]	68	Manjare Pratiksha I	[Signature]
17	Dasarwar Pranita	[Signature]	43	Kadam Smita Poapt	[Signature]	69	Marade Yogita V	[Signature]
18	Dhadge Sharli Ravindra	[Signature]	44	Kale Anushka Shrikant	[Signature]	70	Mehasare Gayatri R	[Signature]
19	Dhas Pratiksha	[Signature]	45	Kale Dnyaeshwari K	[Signature]	71	Mohite Chaitali	[Signature]
20	Dhokane Aastha Sunil	[Signature]	46	Kale Prachi Bhagavan	[Signature]	72	Mohite Rakhi Rajesh	[Signature]
21	Dhole Akanksha S	[Signature]	47	Kamble Sakshi Anand	[Signature]	73	Momin Nida B	[Signature]
22	Dhole Siddhi Bhausheb	[Signature]	48	Kanode Shweta Sanjay	[Signature]	74	More Sneha Santosh	[Signature]
23	Dhormare Radha Avinash	[Signature]	49	Kapale Anushree A	[Signature]	75	Navgire Janhavi Y	[Signature]
24	Dhumal Mayuri D	[Signature]	50	Kashid Snehal Popat	[Signature]	76	Nikam Akansha	[Signature]
25	Dhumane Isha Anand	[Signature]	51	Katore Purva Rajendra	[Signature]	77	Nikam Shruti	[Signature]
26	Doke Rutuja Jalindra	[Signature]	52	Kedari Payal Narayan	[Signature]	78	Pacharne Charuta P	[Signature]

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S. Y. B. Pharm 2022-2023					
Hands on training – Aseptic area (Class 10000)					
Roll No.	Name	Sign	Roll No.	Name	Sign
79	Pachpande Tammayee A	—	104	Shetty Diya	<i>[Signature]</i>
80	Padwal Monika Ganesh	<i>[Signature]</i>	105	Shevkari Sayali	<i>[Signature]</i>
81	Panchbhai Ovee Balraj	<i>[Signature]</i>	106	Shinde Swati	<i>[Signature]</i>
82	Pande Kanchan Manohar	<i>[Signature]</i>	107	Sonar Sakshi Rahendra	—
83	Pardeshi Vaishnavi Sudarshan	—	108	Sonavane Vipashana Prashant	<i>[Signature]</i>
84	Patil Kalika Raosaheb	<i>[Signature]</i>	109	Sukre Sanika Kailas	<i>[Signature]</i>
85	Patil Deepali	—	110	Suryawanshi Prerana Sanjay	<i>[Signature]</i>
86	Patil Indrayani Vijay	<i>[Signature]</i>	111	Talekar Tejal Suhas	<i>[Signature]</i>
87	Patil Mansi Prashant	—	112	Talpada Arya Ajay	<i>[Signature]</i>
88	Patil Vaishnavi Dinesh	<i>[Signature]</i>	113	Temkar Maya Uttam	<i>[Signature]</i>
89	Punde Kshitija Rajendra	<i>[Signature]</i>	114	Thakur Anjali	<i>[Signature]</i>
90	Rathod Radhika	<i>[Signature]</i>	115	Thorat Rutuja Arun	<i>[Signature]</i>
91	Rathod Sonali	<i>[Signature]</i>	116	Thorat Vaishnavi Vijay	<i>[Signature]</i>
92	Reddy Aishwaraya Vishnu	<i>[Signature]</i>	117	Thorbole Shradha Satish	<i>[Signature]</i>
93	Roundhal Akanksha	<i>[Signature]</i>	118	Tikudwe Samidha Hanmantrao	<i>[Signature]</i>
94	Sahare Kamini	<i>[Signature]</i>	119	Tirkunde Madhavi Shirang	<i>[Signature]</i>
95	Sakpal Trupti Sudhir	<i>[Signature]</i>	120	Vishwakarma Sakshi Lalji	<i>[Signature]</i>
96	Salunke Vaishnavi Gitraj	—	121	Wagdare Falguni Ram	<i>[Signature]</i>
97	Sapate Tanuja Vagambar	<i>[Signature]</i>	122	Waghmare Ragini Madhav	<i>[Signature]</i>
98	Satkar Sakshi Kalidas	<i>[Signature]</i>	123	Walwate Manisha Shivaji	—
99	Satpute Jayshri	—	124	Wavhal Sakshi Satosh	<i>[Signature]</i>
100	Sawant Neha Vithal	<i>[Signature]</i>	125	Yadav Kumkum Bachelal	<i>[Signature]</i>
101	Sawant Riya	<i>[Signature]</i>	126	Yadav Salone Sanjay	<i>[Signature]</i>
102	Sawant Shradha Chandrikant	—	127	Yelwande Ankita Dattatray	—
103	Shenavi Tanyee Pravin	<i>[Signature]</i>	128	Zagade Janhavi Machindra	<i>[Signature]</i>

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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION SESSION ON EXTRUDER AND
SPHERONIZER**

**TRAINER
PRIYANKA S.SHINDE**

15-02-2023



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REPORT


The demonstration session of the Extruder and Spheronizer was arranged on 15/02/2023, Friday at 03:00 pm for students of First Year M. Pharm. This demonstration session served as a platform for students to gather knowledge of pharmaceutical sciences with emerging trends and innovative approaches. The demonstration session is taken as an effective and developmental practice to ensure that students are aware of novel approaches which can be used in Formulation and Development, Research and Development, etc.

In this demonstration session, the overall concept, as well as applications of extrusion and spheronization, were explained to students. This was followed by an introduction to the entire components of the Extruder and Spheronizer and their stepwise working in detail.

The outcome of the demonstration:

1. Students learned the components of the Extruder and Spheronizer.
2. Students understood extrusion and spheronization techniques.
3. Students studied applications of extrusion and spheronization.




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DEMONSTRATION OF EXTRUDER AND SPHERONIZER

Extrusion and Spheronization:

Extrusion and spheronization is a multi-step process used to produce uniform spherical pellets (spheroids) from a wet mass. This process is widely used in the pharmaceutical industry to create controlled-release dosage forms, improve flow properties, and enhance the uniformity of the final product.

Principle of Extrusion and Spheronization:

The process involves extruding a wetted mass through a die to form cylindrical extrudates, which are then broken into smaller segments and rounded into spheres in a spheronizer. This method ensures high sphericity and uniform size distribution of the pellets, which is crucial for consistent drug release profiles.

The steps required for extrusion and spheronization can be summarized as follows:

- **Mixing:** Combine the active pharmaceutical ingredient (API) with excipients and a binder solution to form a wet mass.
- **Extrusion:** Feed the wet mass into an extruder to produce cylindrical extrudates.
- **Spheronization:** Transfer the extrudates to a spheronizer, where they are broken into smaller segments and rounded into spheres.
- **Drying:** Dry the spherical pellets to remove any residual moisture.
- **Screening:** Screen the dried pellets to achieve the desired size distribution.



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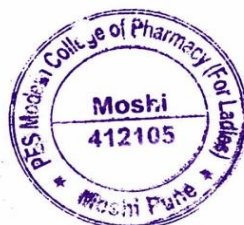
EXTRUDER AND SPHERONIZER EQUIPMENT: The main components of extruder and spheronizer equipment are:

- **Extruder:** Device used to push the wet mass through a die to form cylindrical extrudates. It typically includes a hopper, screw, and die plate.
- **Spheronizer:** A rotating plate with a grooved surface that breaks the extrudates into smaller segments and rounds them into spheres.
- **Mixer/Granulator:** Used to prepare the wet mass by combining the API, excipients, and binder solution.
- **Dryer:** Equipment used to remove moisture from the spherical pellets, such as a fluid bed dryer or tray dryer.
- **Sieve/Screen:** Used to separate pellets based on size to ensure uniformity.

Applications of Extruder and Spheronizer:

Extrusion and spheronization are used in a wide range of pharmaceutical applications, often applied to the following products and processes:

- **Controlled-Release Formulations:** Creating pellets that release the drug at a controlled rate.
- **Taste Masking:** Encapsulating bitter drugs in spheroids to mask their taste.
- **Pelletization:** Producing pellets that can be filled into capsules or compressed into tablets.
- **Multi-Particulate Systems:** Developing dosage forms with multiple APIs in a single dosage unit.
- **Improved Flow Properties:** Enhancing the flow properties of powders and granules.
- **Uniform Drug Distribution:** Ensuring consistent drug content in each pellet for uniform dosing.



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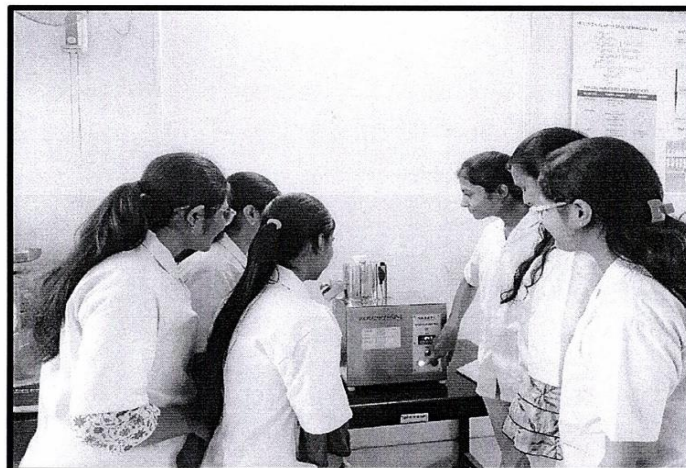
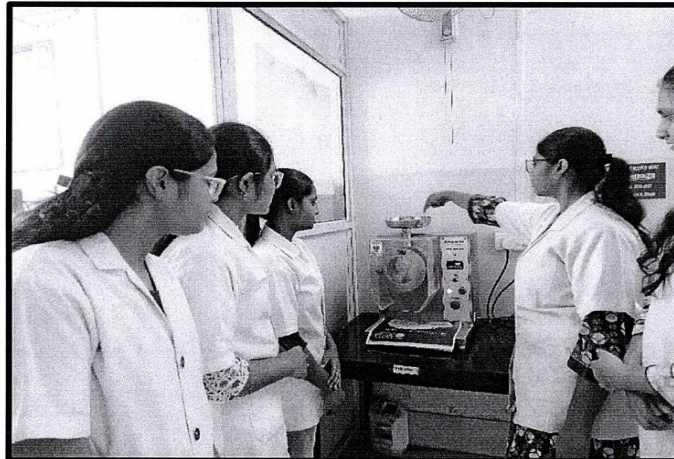



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Snapshots of Demonstration Session:




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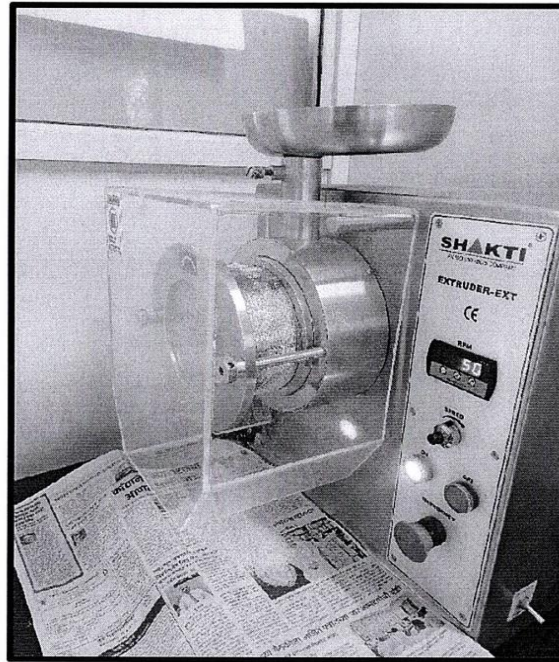
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Demonstration of extruder and spheronizer on 15/02/2023

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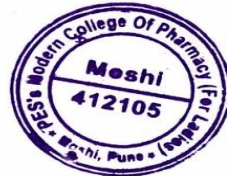
Extruder & Spheronizer - Attendance

PES Modern College of Pharmacy (for Ladies), Moshi

Academic Year : 2022-23

Name of course & year : - M.Pharm Pharmaceutics

Roll No.	Name of Candidate	Sign
1	APHALE KIRAN SANTOSH	Kiran
2	BHOSLE VAISHNAVI EKNATH	Vaishnavi
3	GHUGE SHIVANI JAGANNATH	Shivani
4	GORE SUVARNA PRASAD	Suvarna
5	HARAKAL POOJA DNYANOBA	Pooja
6	KAPALE NIKITA PRAVIN	Nikita
7	KHADE KOMAL SATISH	Khadke
8	KHEDKAR SANSKRUTI V	Khedkar
9	LONDHE PRATIKSHA SACHIN	Pratiksha
10	MUNJAL POOJA SUDAMRAO	Pooja
11	PRIYANKA SANJAY SONI	Priyanka
12	SHELAR PRANJALI PRALHAD	Shelar
13	THORAT SNEHAL RAJENDRA	Snehal
14	TITKARE RUTUJA SURESH	Rutuja
15	TODKAR SHRADDHA SANDEEP	Shraddha
16	UMATE TANUJA YOGANAND	Tanuja
17	WAGHMARE PRATIKSHA S	Pratiksha



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**PES MODERN COLLEGE OF
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**WORKSHOP ON
DEMONSTRATION SESSION OF PROBE
SONICATOR**

**TRAINER
PRIYANKA S.SHINDE**

17-02-2023



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REPORT


The demonstration session of Probe Sonicator was arranged on 17/02/2023, Friday at 03:00 pm for students of First Year M. Pharm. This demonstration session served as a platform for students to gather knowledge of pharmaceutical sciences with emerging trends and innovative approaches. The demonstration session is taken as an effective and developmental practice to ensure that students are aware of novel approaches which can be used in Formulation and development, Research and Development, etc.

In this demonstration session, the overall concept, as well as applications of ultrasonic homogenization, are explained to students. This was followed by an introduction to the entire components of the Probe Sonicator and its stepwise working in detail.

The outcome of the demonstration:

1. Students learned the components of Probe Sonicator.
2. Students understood ultrasonic homogenization techniques.
3. Students studied applications of ultrasonic homogenization.




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DEMONSTRATION OF PROBE SONICATOR

Ultrasonic Homogenization:

Ultrasonic homogenization is the process of using ultrasonic waves to reduce the size of particles in a liquid, creating a uniform mixture. This process is commonly used in the preparation of nanoemulsions, cell lysing, and particle size reduction in pharmaceutical formulations. It is an excellent method for ensuring uniform particle size distribution and enhancing the solubility and bioavailability of pharmaceutical substances.

Principle of Ultrasonic Homogenization:

The probe sonicator uses high-frequency ultrasonic waves to create cavitation bubbles in a liquid. When these bubbles collapse, they generate intense shock waves and localized high temperatures and pressures, which help break down particles and cells. This process can be controlled precisely to achieve the desired level of homogenization.

The steps required to use a Probe Sonicator can be summarized as follows:

- **Preparation:** Ensure the sample is appropriately prepared and placed in a suitable container.
- **Setup:** Attach the probe to the sonicator and place it into the sample.
- **Sonication:** Set the sonication parameters (time, amplitude, pulse, etc.) and start the sonication process.
- **Monitoring:** Observe the process and adjust parameters if necessary to achieve optimal results.
- **Post-Sonication:** Remove the probe, clean the equipment, and process the sample as required.



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PROBE SONICATOR EQUIPMENT:

The main components of probe sonicator equipment are:

- **Ultrasonic Generator:** Converts electrical energy into high-frequency ultrasonic waves.
- **Probe (Sonotrode):** Transmits ultrasonic waves into the sample.
- **Amplitude Control:** Regulates the intensity of the ultrasonic waves.
- **Timer:** Controls the duration of the sonication process.
- **Cooling System:** Prevents overheating of the sample during sonication.

APPLICATIONS OF PROBE SONICATOR:

There is a wide range of applications for ultrasonic homogenization in pharmaceutical and biotechnology production, often applied to the following products and processes:

- **Nanoemulsions:** Enhancing the solubility and stability of poorly soluble drugs.
- **Cell Lysing:** Breaking down cell membranes to release cellular contents.
- **Particle Size Reduction:** Creating uniform particle sizes for improved drug delivery.
- **Dispersion of Nanoparticles:** Ensuring even distribution of nanoparticles in formulations.
- **Emulsification:** Creating stable emulsions for various pharmaceutical applications.
- **Sonochemistry:** Facilitating chemical reactions using ultrasonic waves.



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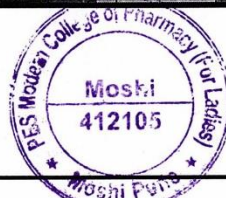
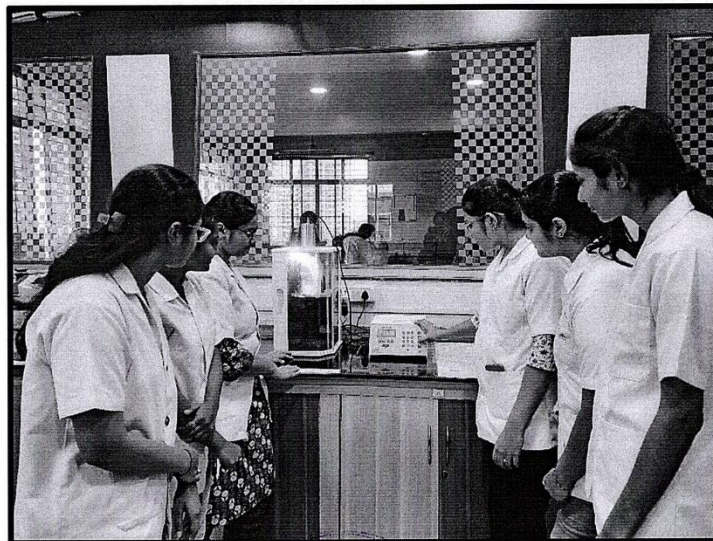
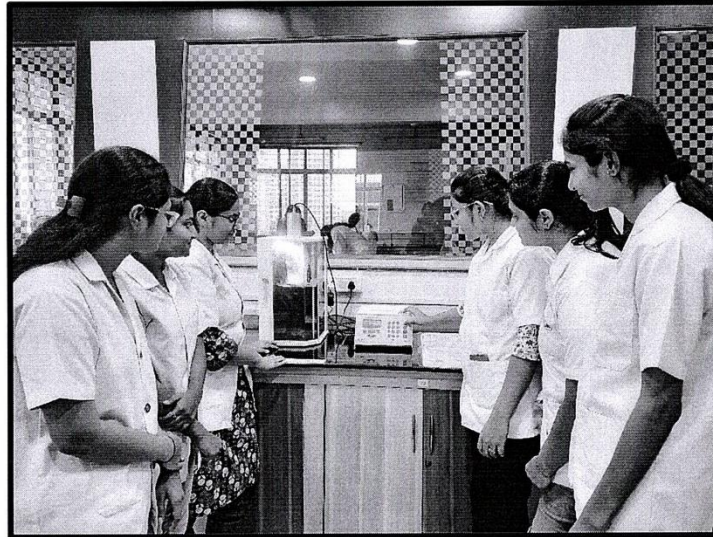



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Snapshots of Demonstration Session:




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Demonstration of Probe Sonicator on 17/02/2023

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Probe Sonicator - Attendance PES Modern College of Pharmacy (for Ladies), Moshi

Academic Year : 2022-23

Name of course & year : - M.Pharm Pharmaceutics

Roll No.	Name of Candidate	Sign
1	APHALE KIRAN SANTOSH	<i>Kiran</i>
2	BHOSLE VAISHNAVI EKNATH	<i>Valchi</i>
3	GHUGE SHIVANI JAGANNATH	<i>Shivani</i>
4	GORE SUVARNA PRASAD	<i>Sore</i>
5	HARAKAL POOJA DNYANOBA	<i>Hanorkar</i>
6	KAPALE NIKITA PRAVIN	<i>NK</i>
7	KHADE KOMAL SATISH	<i>Khadke</i>
8	KHEDKAR SANSKRUTI V	<i>Khedkar</i>
9	LONDHE PRATIKSHA SACHIN	<i>LB</i>
10	MUNJAL POOJA SUDAMRAO	<i>Pooja</i>
11	PRIYANKA SANJAY SONI	<i>Psoni</i>
12	SHELAR PRANJALI PRALHAD	<i>Bhelar</i>
13	THORAT SNEHAL RAJENDRA	<i>Snehal</i>
14	TITKARE RUTUJA SURESH	<i>Rutuja</i>
15	TODKAR SHRADDHA SANDEEP	<i>Shodkar</i>
16	UMATE TANUJA YOGANAND	<i>Tanvi</i>
17	WAGHMARE PRATIKSHA S	<i>Pratike</i>



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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION SESSION OF DISSOLUTION
TEST APPARATUS**

**TRAINER
RUTUJA S.AHER**

28-02-2023



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Business Council P.E. Society, Pune

Report

The demonstration session of Dissolution test apparatus was arranged on 28/02/2023, at 03:00 pm for students of M. Pharm.


This demonstration session served as a platform for students to gather knowledge of pharmaceutical sciences with emerging trends and innovative approaches. The demonstration session is taken as an effective and developmental practice to ensure that students will aware of novel approaches which can be used in Formulation and development, Research and Development etc.

In this demonstration session, the overall concept, as well as applications of tablet preparation, is explained to students. Followed by an introduction of the entire components of Dissolution test apparatus and its stepwise working in detail.

The outcome of the demonstration:

1. Students learnt the components of Dissolution test apparatus.
2. Students studied applications of Dissolution test apparatus.




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Demonstration of Dissolution Test Apparatus

Dissolution is a technique in which a solid substance solubilizes in a given solvent i.e. mass transfer from the solid surface to the liquid phase.

The principle for carrying these tests is that, for a product to be therapeutically efficient, the drug must be discharged from the product and should broadly be dissolved in the fluids of the gastrointestinal tract. The API in solution form helps the absorption of the drug from the gastrointestinal tract into the systemic circulation to achieve its desired target area to exert its effect. The data received as a result of dissolution examination guides the development of novel formulation and product development and also dissolution is necessary for regulatory approval for product marketing.

Types of Tablet Dissolution Apparatus: The different types of tablet dissolution apparatus as per USP include:

1. Basket type
2. Paddle type
3. Reciprocating cylinder
4. Flow through cell
5. Paddle over disc
6. Rotating cylinder
7. Reciprocating disc

OPERATING PROCEDURE-

1. Fill the acrylic tank with Distilled water up to the level marked.
2. Fill the dissolution vessel with 900 ml or as per specification of the dissolution media as marked on the vessel.
3. Cover the dissolution vessel with acrylic lid.
4. Fit the thermometer to the acrylic lid.
5. Switch on electrical supply and main switch on machine.
6. Switch on the heater.
7. Enter the digit to set date and then press ENTER key.



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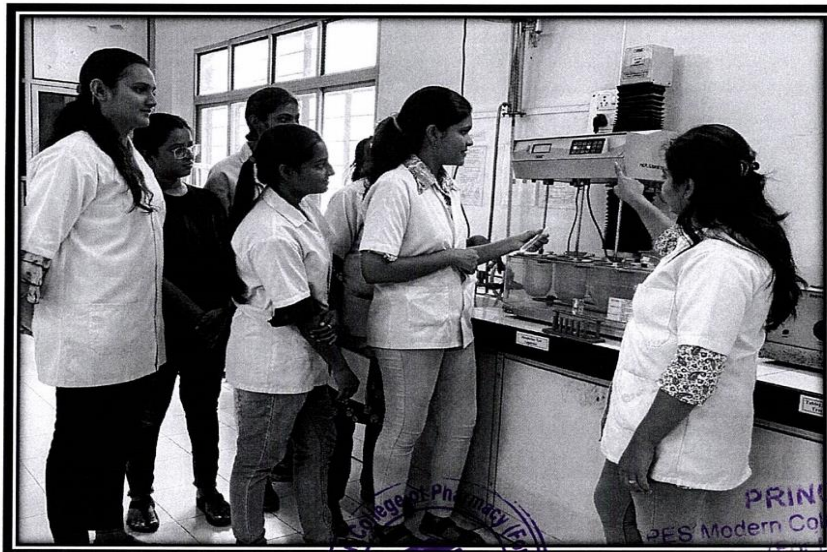
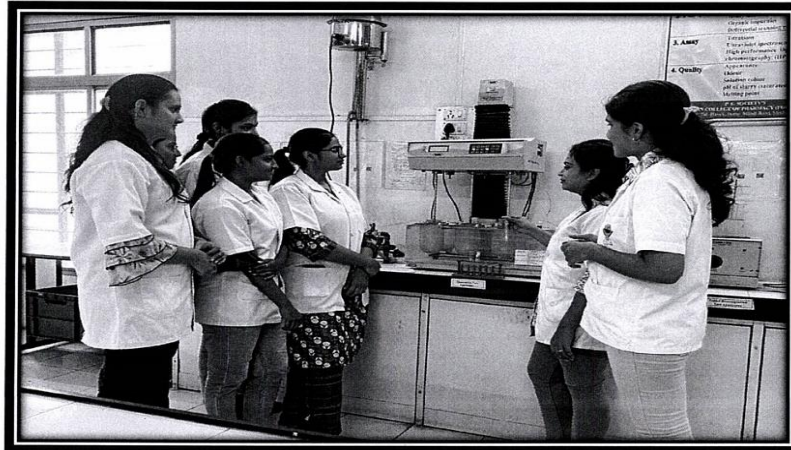


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Snapshots of Demonstration Session:



[Signature]
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Demonstration of Dissolution test apparatus on 28/02/2023

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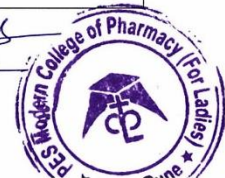
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F. Y. M. Pharm 2022-2023

Hands on training -Dissolution Test Apparatus

Roll No	Name of Students	Signature
4	Nitu Chowdhary	
16	Teja Solunkhe	
12	Sakshi Mohite	
03	Kranti biradar	
11	Monika Kute	
10	Manisha Kattkade	
13	Aarti Patil	
06	Sushma Ghuge	
07	Vaishnavi Ithape	
09	Tanuja Kakade	
10	Pooja Marjal	
11	Priyanka Soni	
7	Komal Khade	
5	Harkal Pooja	
3	Ghugre Shivani	
16	Umate Tanuja	
02	Vaishnavi Bhosle	
06	Gore Suvarna	
08	Khedkar Sangkruti	
014	Rutuja Titkare	
017	Pratibha Waghmare	
12	Pranjali Shelar	



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**PES MODERN COLLEGE OF
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MOSHI, PUNE**



**WORKSHOP ON
DEMONSTRATION OF TABLET PUNCHING
MACHINE**

**TRAINER
RUTUJA S. AHER**

17-04-2023

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Report

The demonstration session of Rotary Tablet Punching Machine was arranged on 17/04/2023, Friday at 03:00 pm for students of Second Year B. Pharm.


This demonstration session served as a platform for students to gather knowledge of pharmaceutical sciences with emerging trends and innovative approaches. The demonstration session is taken as an effective and developmental practice to ensure that students will aware of novel approaches which can be used in Formulation and development, Research and Development etc.

In this demonstration session, the overall concept, as well as applications of tablet preparation, is explained to students. Followed by an introduction of the entire components of Rotary Tablet Punching Machine and its stepwise working in detail.

The outcome of the demonstration:

1. Students learnt the components of Rotary Tablet Punching Machine.
2. Students studied applications and formulation of tablet.




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Demonstration of Rotary Tablet Punching Machine

Multi station presses are termed rotary because the head of the machine that holds the upper punches, dies and lower punches in place rotates.

Working principle of Compression Machine:

1. Filling and Dosing of the Dies
2. Compression of the Tablets
3. Ejection and Exit of the Tablets

OPERATING PROCEDURE

1. Ensure that electrical supply is disconnected before starting machine setting.
2. The machine should not be operated without guards in the correct position.
3. Proper lubrication must be maintained throughout the compression process.
4. Check punches and dies cleanliness.
5. Rotate machine turret and check that turret rotates freely.
6. Check that pressure wheels are free and pressure is released.
7. Check that sockets of upper/lower punches and dies are properly cleaned.
8. Fit dies using die rod. Ensure that die is fitted in turret, tighten die by holding screws.
9. Rotate hand wheel and check that all lower punches move freely, 10. Fit upper punches.
11. Close lower punch guard covers and feet the feed frame and check the clearance with turret.
12. Fix hopper in such way, so as to give 3-5mm clearance from turrets for free flow granules to the feed frame.
13. Rotate hand wheel and check that machine is free.
14. Check that tablet and granules containers, and polythene bags, etc. for cleanliness.
15. Load granules/ powder in hopper, rotate machine by hand to fill feed-frame and dies.
16. Apply pressure just to form tablet. Check weight of the tablet. Further increase the pressure to produce required thickness of the tablets.



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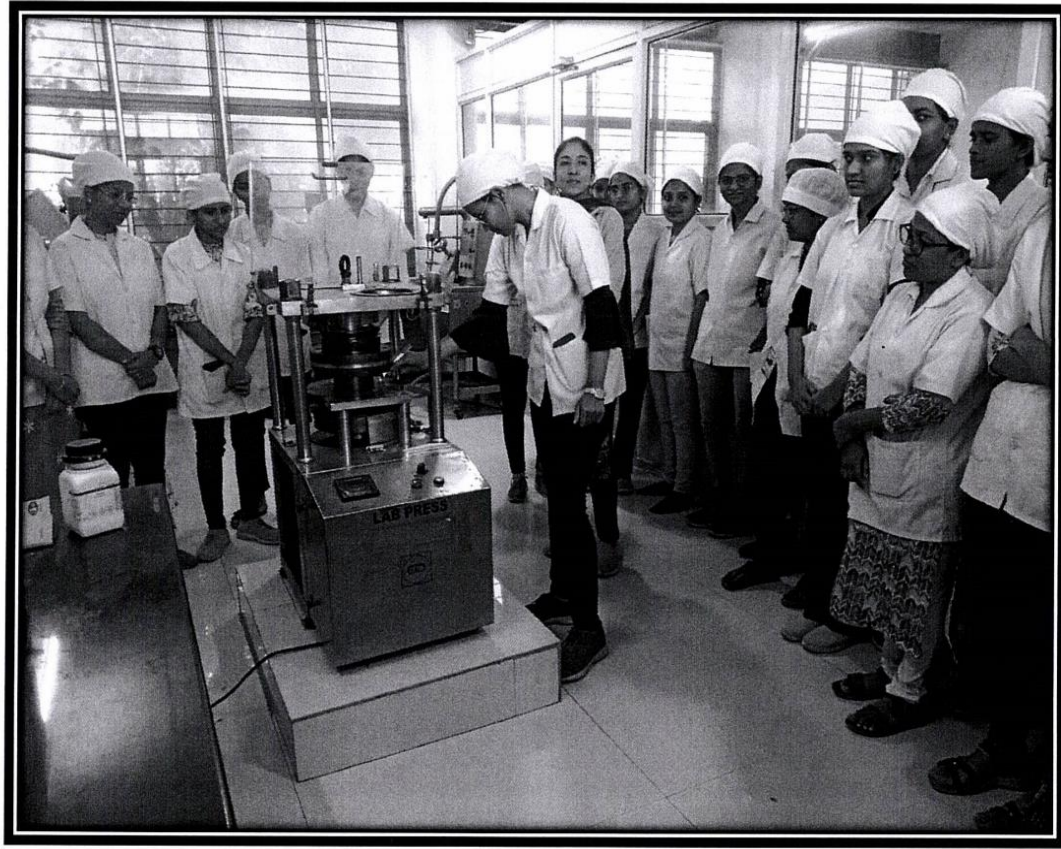


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Snapshots of Demonstration Session:



Demonstration of Tablets punching machine on 17/04/2023

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S. Y. B. Pharm 2022-2023								
Hands on training – Tablet Compression Machine								
Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign
1	Atole Gauri		27	Falke Gitanjali B.		53	Kedari Vaishali Mohan	
2	Amble Shruti Pramod		28	Gadekar Rachana B		54	Khair Srushti Navnath	
3	Awale Sayali Hanumant		29	Gaikwad Rutuja V		55	Kharabi Siddhi Rahul	
4	Bachkar Sonali Bhmaji		30	Gaikwad Samruddhi S		56	Khule Pallavi Ashok	
5	Bagul Trupti Rajesh		31	Gavade Sanika Kalidas		57	Kobal Sakshi Uttam	
6	Baskar Asvitha		32	Gaware Nikita K		58	Konde Khushi Amol	
7	Bawane Sanyukta S		33	Ghanwat Snehal		59	Kshirsagar Pratiksha D	
8	Bhangre Mrudula B		34	Gharge Mrunal		60	Kumbhar Divya M	
9	Bhavar Rutuja B		35	Ghodke Vaishnavi		61	Lande Trupti Nilesh	
10	Bhilare Tejasvini Kiran		36	Gosavi Mansi		62	Lohar Rutuja Deepak	
11	Bhosale Gautami G		37	Harke Gayatri Sunil		63	Magar Swamini C	
12	Bhosale Saroj		38	Hule Sarthi Rajendra		64	Mali Mansi Sachin	
13	Biradar Shradda S		39	Ingole Pooja Pramod		65	Mali Vaishnavi B	
14	Birle Vaishnavi Sachin		40	Jadhav Akansha J		66	Mane Nayan V	
15	Chaudhary Zainab G		41	Jadhav Ketaki Pratap		67	Mane Shreya Mahesh	
16	Dadas Vaishnavi Dhanaji		42	Jawanjal Purva S		68	Manjare Pratiksha I	
17	Dasarwar Pranita		43	Kadam Smita Poapt		69	Marade Yogita V	
18	Dhadge Shari Ravindra		44	Kale Anushka Shrikant		70	Mehasare Gayatri R	
19	Dhas Pratiksha		45	Kale Dnyaeshwari K		71	Mohite Chaitali	
20	Dhokane Aastha Sunil		46	Kale Prachi Bhagavan		72	Mohite Rakhi Rajesh	
21	Dhole Akanksha S		47	Kamble Sakshi Anand		73	Momin Nida B	
22	Dhole Siddhi Bhausheb		48	Kanode Shweta Sanjay		74	More Sneha Santosh	
23	Dhormare Radha Avinash		49	Kapale Anushree A		75	Navgire Janhavi Y	
24	Dhumal Mayuri D		50	Kashid Snehal Popat		76	Nikam Akansha	
25	Dhumane Isha Anand		51	Katode Pratiksha Rajendra		77	Nikam Shruti	
26	Doke Rutuja Jalindra		52	Kedari Payal Nityan		78	Pacharne Charuta P	



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Hands on training – Tablet Compression Machine					
Roll No	Name	Sign	Roll No	Name	Sign
79	Pachpande Tanmayee A		104	Shetty Diya	
80	Padwal Monika Ganesh		105	Shevkari Sayali	
81	Panchbhai Ovee Balraj		106	Shinde Swati --	
82	Pande Kanchan Manohar		107	Sonar Sakshi Rahendra	
83	Pardeshi Vaishnavi Sudarshan		108	Sonavane Vipashana Prashant	
84	Patil Kalika Raosaheb		109	Sukre Sanika Kailas	
85	Patil Deepali		110	Suryawanshi Prerana Sanjay	
86	Patil Indrayani Vijay		111	Talekar Tejal Suhas	
87	Patil Mansi Prashant		112	Talpade Arya Ajay	
88	Patil Vaishnavi Dinesh		113	Temkar Maya Uttam	
89	Punde Kshitija Rajendra		114	Thakur Anjali	
90	Rathod Radhika		115	Thorat Rutuja Arun	
91	Rathod Sonali		116	Thorat Vaishnavi Vijay	
92	Reddy Aishwaraya Vishnu		117	Thorbole Shradha Satish	
93	Roundhal Akanksha		118	Tikudwe Samidha Hanmantrao	
94	Sahare Kamini		119	Tirkunde Madhavi Shrirang	
95	Sakpal Trupti Sudhir		120	Vishwakarma Sakshi Lalji	
96	Salunke Vaishnavi Gitraj		121	Wagdare Falguni Ram	
97	Sapate Tanuja Vagambar		122	Waghmare Ragini Madhav	
98	Satkar Sakshi Kalidas		123	Walwate Manisha Shivaji	
99	Satpute Jayshri		124	Wavhal Sakshi Satosh	
100	Sawant Neha Vithal		125	Yadav Kumkum Bachelal	
101	Sawant Riya		126	Yadav Salone Sanjay	
102	Sawant Shradha Chandrkant		127	Yelwande Ankita Dattatray	
103	Shenavi Tanyee Pravin			Zagade Janhavi Machindra	



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Principal

Prof. Dr. G. R. Ekbote,
(M.S., M.N.A.M.S.) Chairman,
Business Council P.E. Society, Pune

PES MODERN COLLEGE OF PHARMACY (FOR LADIES), MOSHI, PUNE

WORKSHOP ON DEMONSTRATION OF DIFFUSION CELL APPARATUS

TRAINER
Monali Waykar

04/05/2023

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Business Council P.E. Society, Pune

Diffusion Cell Apparatus Report

Diffusion Cell Equipment Installation was done in Central Instrument Room on 4 May 2023 following Standard operating procedure for handling of equipment was explained during the installation process.

- 1.Place the diffusion cell apparatus on the level surface.
2. Connect required power supply to the instrument.
- 3.Place the receptor compartment of diffusion cells in cell holders as per marking.
4. Insert the magnetic stirrer bar in receptor compartment of each cell
- 5.Pour the right amount of dissolution solution or media solution in each cell
- 6.Insert the power cord of magnetic stirrer drive and water tank into power plug
- 7.Switch on the magnetic stirrer drive
8. Set the desired RPM by using the RPM keypad and adjust the electromagnetic induction by using the induction knob.
- 9.Always increase or decrease RPM slowly and gradually with adjustments of magnetic induction simultaneously.
- 10.Make all water circulation connections using provided silicon tubing and interconnecting levers.
11. Switch on the water circulation tank
- 12.Set desired temperature on temperature controller
- 13.Switch on the water circulation pump.
- 14.Always ensure that the stopcock is in on position prior to starting the water circulation pump
- 15.Place the membrane on the receptor compartment and place donor compartment and tight the assembly by using millipore type clamp
- 16.The experiment must be started when the set temperature value and speed of the magnetic stirrer is reached.
- 17.Apply the formulation to be tested on the membrane.
18. Take the samples from the sampling port at the desired time intervals using a syringe.
19. After completion of experiment, remove the water in the circulating tubing as per process below:
 - a.Switch off the water circulation pump and magnetic stirrer drive.



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- b. Turn off the tank water out stopcock
 - c. Connect the tip of the large syringe supplied with the instrument to the end of the removed silicon tube.
 - d. Remove the circulating water by pulling the syringe plunger.
 - E. Drain the water in the water circulation tank.
20. Remove the cell and tube connections and dismantle the assembly.



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Demonstration of Diffusion Cell Apparatus on 04/05/2023

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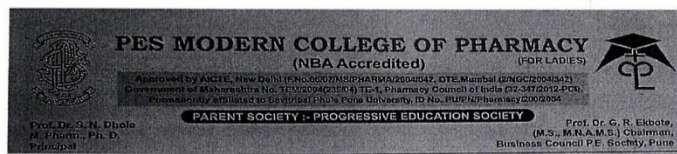
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Attendance during training

Topic of Training: Installation & working of "Diffusion Cell Apparatus"

Date: 04/05/2023

Time: 2.00 pm - 03:00pm

Sr No.	Name of the faculty	Signature
1.	Mr. Tanuja Sawant	
2.	Mr. Deepak Shimpi	
3.	Ms. Ashwini Pagare	
4.	Mr. Kadam Ganesh Tukaram	
5.	Mr. Ghanvat Keshav Jagannath	
6.	Mr. Pravin Sarjerao Patole	
7.	Mrs. Bhise Surekha Subhash	
8.	Mr. Soniya Ausekar Prasad	

Activity Co-ordinator

IQAC Co-ordinator



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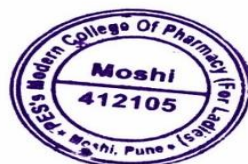
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(M.S., M.N.A.M.S.) Chairman,
Business Council P.E. Society, Pune

Academic Year : 2022-23

Name of course & year : - M.Pharm Pharmaceutics

Roll No.	Name of Candidate	Sign
1	APHALE KIRAN SANTOSH	<i>Kiran</i>
2	BHOSLE VAISHNAVI EKNATH	<i>Valsh</i>
3	GHUGE SHIVANI JAGANNATH	<i>Shivani</i>
4	GORE SUVARNA PRASAD	<i>Gore</i>
5	HARAKAL POOJA DNYANOBA	<i>Harakal P.J.</i>
6	KAPALE NIKITA PRAVIN	<i>Nika</i>
7	KHADE KOMAL SATISH	<i>Khadkar</i>
8	KHEDKAR SANSKRUTI V	<i>Khedkar</i>
9	LONDHE PRATIKSHA SACHIN	<i>PB</i>
10	MUNJAL POOJA SUDAMRAO	<i>Pooja</i>
11	PRIYANKA SANJAY SONI	<i>Psoni</i>
12	SHELAR PRANJALI PRALHAD	<i>Bhelar</i>
13	THORAT SNEHAL RAJENDRA	<i>Snehal</i>
14	TITKARE RUTUJA SURESH	<i>Suresh</i>
15	TODKAR SHRADDHA SANDEEP	<i>Shraddha</i>
16	UMATE TANUJA YOGANAND	<i>Tanuja</i>
17	WAGHMARE PRATIKSHA S	<i>Pratik</i>



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GUEST LECTURE ON “Basics of formulation development”



24/06/2023

Venue: Seminar Hall

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Business Council P.E. Society, Pune

Ref: MCPL/letter/ 2022-23/132A .

Date: 24/06/2023

To,
Dr. Sanjay Boldhane,
Microlabs, Bangalore

Subject: Invitation letter for conducting lecture on “Basics of formulation Development”

Dear Sir,

Progressive Education Society has started Modern College of Pharmacy (For Ladies), Moshi, 2004. It is catering to women student by offering D.Pharm, B.pharm, M.pharm and PhD course. Our college is first Pharmacy College established for women by private organization in Maharashtra. The college is accredited by NBA and NAAC.

We would like to invite you as resource person. We request you to conduct lecture on topic “Basics of formulation development” We can schedule the lecture as per your convenience. We will be highly obliged if you spare valuable time for us and we look forward for your guidance.

Thanking you,




Prof. Dr. S.N. Dhole

PRINCIPAL
PES Modern College of Pharmacy
(For Ladies) .
Borhadewadi, At/Post Moshi
Tal.Haveli, Dist.Pune - 412105

• Borhadewadi, Dehu - Alandi Road, A/P. Moshi, Tal - Haveli, Dist. - Pune - 412 105 M.S. (INDIA)
• Tel. 7276078868 Email.: pharמושiwomen@yahoo.com Website.: www.mcpledu.org

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SUMMARY REPORT ON GUEST LECTURE

Topic of Guest Lecture: “Basics of formulation development”

Resource Person: Dr. Sanjay Boldhane, Microlabs, Banglore

Conducted on: 24/06/2023

PES Modern College of Pharmacy (for ladies), Moshi, Pune, has arranged a guest lecture on topic “Basics of formulation development” by the resource person Dr. Sanjay Boldhane, Microlabs, Banglore. Introduction of the program and resource person was given M. Pharm student. Speaker was welcomed by our respected Principal Dr. Shashikant Dhole sir with bouquet of flowers. In his lecture, he guided students regarding basics of pharmaceutical parameters of tablet formation. He told about strategies in drug discovery and pharmaceutical development. The session was interactive and students were satisfied after listening his thoughts. It was a great experience to be a part of such an informative and helpful session. Overall, the guest lecture was nice and was helpful for improving knowledge. The lecture ended with a vote of thanks given by Priyanka Shinde Mam.



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PES MODERN COLLEGE OF PHARMACY (for ladies) MOSHI, PUNE

CLASS: M PHARM SEM I

SPECIALIZATION:
PHARMACEUTICS

STUDENT ENROLMENT

ROLL NO	NAME OF STUDENT
1	APHALE KIRAN SANTOSH
2	BHOSLE VAISHNAVI EKNATH
3	GHUGE SHIVANI JAGANNATH
4	GORE SUVARNA PRASAD
5	HARAKAL POOJA DNYANOBA
6	KAPALE NIKITA PRAVIN
7	KHADE KOMAL SATISH
8	KHEDKAR SANSKRUTI V
9	LONDHE PRATIKSHA SACHIN
10	MUNJAL POOJA SUDAMRAO
11	PRIYANKA SANJAY SONI
12	SHELAR PRANJALI PRALHAD
13	THORAT SNEHAL RAJENDRA
14	TITKARE RUTUJA SURESH
15	TODKAR SHRADDHA SANDEEP
16	UMATE TANUJA YOGANAND
17	WAGHMARE PRATIKSHA S

Vaishnavi

Suvarna

Pooja

Tanuja



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PES MODERN COLLEGE OF PHARMACY (for ladies) MOSHI, PUNE

CLASS: M PHARM SEM I

SPECIALIZATION: PHARM
QUALITY ASSURANCE

STUDENT ENROLMENT

ROLL NO	NAME OF STUDENT
1	AMLE RAKSHA SANJEEO
2	BHIRUD JIDNYASA PARAG
3	BIRADAR KRANTI ATMARAM
4	CHOUDHARY NILU AMARARAM
5	CHOURE DIVYA SANJAY
6	GHUGE SUSHMA VISHNU
7	ITHAPE VAISHNAVI ARUN
8	JADHAV GAYATRI SOMANATH
9	KAKADE TANUJA BHAUSAHEB
10	KATKADE MANISHA RAMCHANDRA
11	KUTE MONIKA RAJU
12	MOHITE SAKSHI NITIN
13	PATIL AARTI VITHALRAO
14	PAWAR RUTUJA ANAJI
15	PAWAR SHRUTI SUNIL
16	SALUNKHE TEJAL AJAY
17	YELWANDE PURVA BALASAHEB

Kranti

Choure

@shy

Kakade

Mohte

Patil

Yelwande



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PES MODERN COLLEGE OF PHARMACY (for ladies), MOSHI, PUNE
ACADEMIC YEAR 2022-23
CLASS- M PHARM SECOND YEAR (PHARM QUALITY ASSURANCE)
ROLL CALLS

Roll No	Name of student	Sign
1	BHOSALE KAVERI	
2	BORCHATE DHANASHRI	
3	DESHMUKH MAITHILI	
4	GAIKWAD MAYURI	
5	JANKAR NILAM	
6	PATURKAR SHRADDHA	
7	SHINDE ANKITA	
8	THORAT PRIYANKA	
9	WAGHMARE SNEHA	



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PES MODERN COLLEGE OF PHARMACY (for ladies), MOSHI, PUNE
ACADEMIC YEAR 2022-23
CLASS- M PHARM SECOOND YEAR (PHARMACEUTICS)
ROLL CALLS

Roll No	Name of student	sign
1	Autade Neha	<i>Ah</i>
2	Bedjawalge Rushali	
3	Bhangare Rutuja	<i>(P) Bhangare</i>
4	Burad Shruti	<i>Shruti</i>
5	Huljute Supriya	<i>Supriya</i>
6	Kawale Komal	<i>(B) Komal</i>
7	Kharabi Aishwarya	
8	Madane Shivanjali	
9	Markad Karishma	<i>Karishma</i>
10	Narhare Harshda	
11	Shrangare Jyoti	
12	Swami Dakshayani	
13	Valecha Simran	<i>Simran</i>
14	Wadhokar Anjali	
15	Yadav Simran	



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PES Modern college of Pharmacy (For Ladies), Moshi Pune															
T. Y. B. Pharm Roll Call List 2022-2023 (Sem V)															
Division A-Roll No.1 to 63								Division B-Roll No.64 to 126							
Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign	Roll No	Name	Sign	
BATCH A			BATCH B			BATCH C			BATCH D			BATCH E			
1	Gayatri Aade		27	Sanika Dhore		53	Urwashi Jagdale		78	Sneha Pansare		103	Vaibhavi Umap		
2	AdalingeBhaghyashri		28	Shital Dindewad		54	Supriya Kadbhane		79	Pratibha Parhad		104	Srushri Vidhate		
3	Shraddha Adhav		29	Akanksha Doiphode		55	Shital Kardile		80	Nikita Parve		105	Prachi Wadekar		
4	Rucha Akanikar		30	Harshada Dolare		56	Pranjal Katkar		81	Janhavi Pasmе		106	Vaishali Wagh		
5	Rutuja Ankushe		31	Sakshi Gade		57	Manisha Kevat		82	Sakshi Pathare		107	Sakshi Waghmare		
6	Akansha Arekar		32	Nikita Gadhare		58	Pratiksha Kimbahane		83	Bhagyashri Patil		108	Vaishnavi Waghmare		
7	Misba Attar		33	Vaibhavi Gandhi		59	Pratiksha Kothawale		84	Kirti Patil		109	Tanaya Walse		
8	Varsha Bangar		34	Shweta Galkal		60	Rutika Kshirsagar		85	Vaishnavi Patil		110	Sejal Walunj		
9	Pratiksha Bhandarkar		35	Anjali Gautam		61	Vaishnavi Labade		86	Akshata Pawar		111	Bhakare Mayuri		
10	Nandini Bhavsar		36	Arati Gavali		62	Pranjal Landge		87	Priyanka Pharate		112	Bhangale Vrushi		
11	Varsha Bhilare		37	Pranali Gavate		63	Pranjal Lokhande		88	Divya Rane		113	Bijjasampada		
12	Akshata Bhor		38	Harshada Gaware		64	Kalyani Madake		89	Prachi Ranjane		114	Borate Nikita		
13	Sayali Bhor		39	Priti Ghenand		65	Utkarsha Mahajan		90	Ankita Rathod		115	Choudhary Payal		
14	Aishwarya Bhole		40	Prachiti Ghodake		66	Gayatri Mahamuni		91	Divya Rathod		116	Date varsha		
15	Mrunmayi Bhosale		41	Rutuja Ghundare		67	Ashwini Mohite		92	Prajakta Salunke		117	Gavle shruti		
16	Manaswi Bhurkud		42	Vedanti		68	Sayali More		93	Anagha Saste		118	Jadhav jyoti		

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17	Bushra Bagwan		43	Gulhane Vaishnavi Gupta		69	Shravani Mule	94	Siddhi Sawal		119	Jaiswal Janhavi	
18	Priya Chauhan		44	Anuja Gurav		70	Anushka Nagare	95	Aishwarya Selsurekar		120	Kabne Akankasha	Jok
19	Aishwarya Choudhari		45	Sakshi Gurav		71	Pratiksha Nale	96	Aditi Shevkari		121	Manekar Sharayu	
20	Ashwini Dafal		46	Anjali Hande		72	Prerana Nandkhile	97	Harshita Singh		122	Mavkar Rutuja	
21	Anushka Deokar		47	Kadambari Hankare		73	Renuka Padavale	98	Rutuja Sonawane		123	Pawar Nikita	
22	Sakshi Devsatwar		48	Sakshi Hiwale		74	Suman Padwal	99	Siddhi Sonawane		124	Salunkhe Sakshi	
23	Aditi Dhanawade		49	Sakshi Holkunde		75	Amita Pakhare	100	Vaishnavi Sutar		125	Salve devyani	
24	Nikita Dhanawate		50	Neha Jadhav		76	Pradnya Palaskar	101	Pranjal Taware		126	Sangade varsha	
25	Dhanshri Dhawale		51	Pooja Jadhav		77	Kalyani Pandit	102	Punam Thigale		127	Saste Neha	
26	Ritika Dhonge		52	Pallavi Jadhavar				104	Vaibhavi Umap				



Criterion 3 - Research, Innovations and Extension



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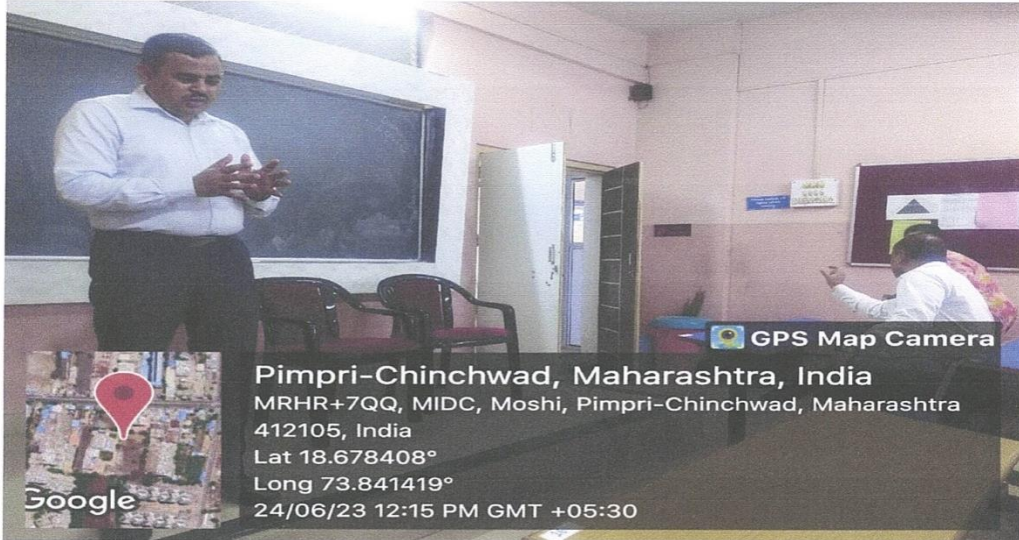
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Guest lecture Dr.Sanjay Boldhane on 24/06/2023