

For Pharmacy Diploma Course

Maharashtra State Board of Technical Education, Mumbai

TEACHING PLAN (TP)

Academic Year: 2023 - 2024

Course Name and Abbr-:Biochemistry & Clinical Pathology

Course Outcomes

- CO₁** – Draw Structure and describe functions of Biomolecules.
- CO₂** - Discuss the various functions of Enzymes in the human system
- CO₃**–. Enlist metabolic pathways of Biomolecules in health and illness.
- CO₄** – Biochemical principles of organ function tests and their clinical significance
- CO₅** -. Describe Clinical pathology of blood and urine.

Year: Second Year Diploma in Pharmacy

Course Code:20123

Name of Faculty:Mrs.Sarika V.Patil.

Unit Outcomes –

- UO₁**– Know the various Biomolecule, their function, classification and deficiency disorders.
- UO₂**–Describe Mechanism of action, Therapeutic and pharmaceutical importance of enzymes.
- UO₃**–Understand Vitamin Sources, chemical nature, functions, coenzyme form, recommended dietary requirements, deficiency diseases.
- UO₄**–Understand Metabolism of Biomolecules.
- UO₅**– To Biochemical principles of organ function tests and their clinical significance know Pathology of blood and urine.

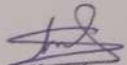
| Chapter No. (Allocate dHrs.) | Relevant CO (Mention only Number) | Relevant UO (Mention only Number) | Topics / Subtopics | Probable Date | Actual Date | Teaching Method / Media | Remarks |
|--|-----------------------------------|-----------------------------------|---|---------------|-------------|-------------------------|------------|
| 1. (07) | 1 | 1 | History of the profession of Pharmacy in India | 5/09/2023 | 5/9 | White Board/Notes | 21/9 CL |
| | | | History of the profession of Pharmacy in India in relation to Pharmacy education, industry, | 6/09/2023 | 6/9 | | |
| | | | Pharmacy practice and various professional associations. | 9/09/2023 | 9/9 | | |
| | | | Pharmacy as a career | 12/09/2023 | 12/9, 13/9 | | |
| | | | Pharmacopoeia: Introduction to IP, BP, USP | 13/09/2023 | 14/9, 20/9 | | |
| | | | NF and Extra Pharmacopoeia. | 14/09/2023 | 29/9 | | |
| | | | Salient features of Indian Pharmacopoeia. | 20/09/2023 | 25/9 | | |
| 2. (05) | 2 | 2 | Packaging materials :- Types | 21/09/2023 | 3/10 | White Board/Notes | C |
| | | | selection criteria, | 23/09/2023 | 4/10 | | |
| | | | Advantages and disadvantages of glass as packaging materials. | 26/09/2023 | 5/10 | | |
| | | | Advantages and disadvantages of plastic as packaging materials. | 27/09/2023 | 10/10 | | |
| | | | Advantages and disadvantages of metal as packaging materials. | 28/09/2023 | 11/10 | | |
| Advantages and disadvantages of rubber as packaging materials. | 3/10/2023 | 12/10 | | | | | |
| 3. (03) | 3 | 2 | Pharmaceutical aids:- | 4/10/2023 | 17/10 | White Board/Notes | C |
| | | | Organoleptic Colouring agents | 5/10/2023 | 17/10 | | |
| | | | flavouring, and sweetening agents | 17/10/2023 | 25/10 | | |
| Preservatives: Definition, types with examples and uses.. | | 25/10, 31/10 | | | | | |

| Chapter No. (Allocate dHrs.) | Relevant CO (Mention only Number) | Relevant UO (Mention only Number) | Topics / Subtopics | Probable Date | Actual Date | Teaching Method / Media | Remarks |
|--|-----------------------------------|-----------------------------------|---|---------------|--------------|-------------------------|------------|
| 1. (07) | 1 | 1 | History of the profession of Pharmacy in India | 5/09/2023 | 5/9 | White Board/Notes | 21/9 CL |
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| | | | Pharmacy practice and various professional associations. | 9/09/2023 | 9/9 | | |
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| | | | Pharmacopoeia: Introduction to IP, BP, USP | 13/09/2023 | 14/9, 20/9 | | |
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| | | | Advantages and disadvantages of plastic as packaging materials. | 27/09/2023 | 10/10 | | |
| | | | Advantages and disadvantages of metal as packaging materials. | 28/09/2023 | 11/10 | | |
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| | | | Organoleptic Colouring agents | 5/10/2023 | 17/10 | | |
| | | | flavouring, and sweetening agents | 17/10/2023 | 25/10, 31/10 | | |

| | | | | | | | |
|---------------|------------|-------|--|------------|-------------|-------------------|---|
| 4. (09) | 1,2,3 | 3 | Unit operations :- definition, objectives/applications, principles, construction and workings of | 18/10/2023 | 3/11/23 | White Board/Notes | C |
| | | | 1. Size Reduction -hammer mill and ball mill | | | | |
| | | | 2. Size separation : Classification powder according to IP, Cyclone separator, Sieves and | 19/10/2023 | 2/11 | | |
| | | | 3. Standards of sieves. | 25/10/2023 | 7/11 | | |
| | | | 4. Mixing : Double cone blender, Turbine mixer, Triple roller mill and Silverson mixer homogenizer. | 26/10/2023 | 8/11 | | |
| | | | 5. Filtration : Theory of filtration | 28/10/2023 | 9/11, 11/11 | | |
| | | | 6. membrane filter and sintered glass filter | 31/10/2023 | 25/11 | | |
| | | | 7. Drying : working of fluidized bed dryer and process of freeze drying | 1/11/2023 | 28/11 | | |
| | | | 8. Extraction : Definition, Classification, Method and Applications | 7/11/2023 | 30/11 | | |
| | | | 8/11/2023 | 5/12 | | | |
| 5-5.1 (08) | 1,2,3 | 3,4 | Tablets :-Coated | 9/11/2023 | 6/12 | White Board/Notes | C |
| | | | Uncoated Tablets | 11/11/2023 | 7/12 | | |
| | | | Modified tablets Sustained Release, | 21/11/2023 | 11/12 | | |
| | | | Extended release | 22/11/2023 | 12/12 | | |
| | | | Fast dissolving, | 23/11/2023 | 13/12 | | |
| | | | Double layered. | 25/11/2023 | 16/12 | | |
| | | | Revision | 28/11/2023 | 19/12 | | |
| Revision | 29/11/2023 | 20/12 | | | | | |
| 5.2 (04) | 1,2,3 | 3,4 | Capsules :- | 30/11/2023 | 21/12 | White Board/Notes | C |
| | | | Hard and soft gelatine capsules; | 5/12/2023 | 2/1/24 | | |
| | | | different sizes of capsules; filling of capsules; | 6/12/2023 | 26/12 | | |
| | | | Handling and storage of capsules. Special Applications of capsules. | 7/12/2023 | 27/12 | | |
| | | | 9/12/2023 | 28/12 | | | |
| 5.3 (06) | 1,2,3 | 3,4 | Liquid oral preparations :- Solution | 12/12/2023 | 2/1 | White Board/Notes | C |
| | | | Syrup, | 13/12/2023 | 3/1 | | |

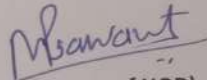
| | | | | | | | |
|---|------------|------|--|------------|------|----------------------|--------------------|
| | | | Elixir | 14/12/2023 | 4/1 | | |
| | | | Emulsion | 19/12/2023 | 9/1 | | |
| | | | Suspension | 20/12/2023 | 10/1 | | |
| | | | Dry powder for reconstitution | 21/12/2023 | 11/1 | | |
| 5.4 (08) | 1,2,3 | 3,4 | Topical preparations :- Ointments, | 23/12/2023 | 25/1 | White Board/Notes | C |
| | | | Creams | 26/12/2023 | 30/1 | | |
| | | | Pastes | 27/12/2023 | 31/1 | | |
| | | | Gels | 28/12/2023 | 1/2 | | |
| | | | Liniments | 30/12/2023 | 10/2 | | |
| | | | Lotions | 1/01/2024 | 13/2 | | |
| | | | Suppositories | 3/01/2024 | 14/2 | | |
| | | | Pessaries | 4/01/2024 | 15/2 | | |
| | | | 5.5 (02) | 1,2,3 | 3,4 | | |
| Nasal preparations, Ear preparations | 10/01/2024 | 21/2 | | | | | |
| 5.6 (03) | 1,2,3 | 3,4 | Powders and granules :- | 11/01/2024 | 13/1 | White Board/Notes | sequence change |
| | | | Insufflations, Dusting powders, | 13/01/2024 | 23/1 | | |
| | | | Powders Effervescent Effervescent granules | 16/01/2024 | 24/1 | | |
| 5. (06) | 1,2,3 | 3,4 | Sterile formulations :- Injectables eye drops and eye ointments | 17/01/2024 | 24/2 | White Board/Notes | C |
| 5.8 (04) | 1,2,3 | 3,4 | Immunological Products :- Sera | 18/01/2024 | 24/2 | White Board/Notes | C |
| | | | Vaccines | 23/01/2024 | 28/2 | | |
| | | | Toxoids | 24/01/2024 | 29/2 | | |
| | | | Manufacturing Methods | 25/01/2024 | 2/3 | | |
| 6. (05) | 3 | 3,4 | Basic structure, layout, sections and activities of pharmaceutical manufacturing :- | 27/01/2024 | 5/3 | White Board/Notes | C |
| | | | Definition and concepts of quality control & quality assurance, | | | | |
| | | | Current Good Manufacturing Practice (cGMP), | 30/01/2024 | 6/3 | | |
| | | | Introduction to concept of calibration and validation. | 31/01/2024 | 7/3 | | |
| 7. (05) | 1,2,3 | | Novel Drug Delivery Systems :- Introduction, | 1/02/2024 | 9/3 | White Board/Notes | C |

| | | | | | |
|--|-----|------------------------------|------------|------|---|
| | 3.4 | Classification with examples | 6/02/2024 | 12/3 | C |
| | | Advantages of NDDS | 7/02/2024 | 14/3 | C |
| | | Challenges of NDDS | 8/02/2024 | 19/3 | C |
| | | Revision | 10/02/2014 | 20/3 | C |



(Name & Signature of Faculty)

Mrs. S.V. Patil



(Name & Signature of HOD)

Mr. M.P. Sawant



(Name & Signature of Principal)

Dr. S.J. Kshirgar

Lecture Plan

| | |
|------------------------------------|---|
| Class: Third Y. B. Pharmacy | Name of Subject: Industrial Pharmacy I |
| Sem : V | Course (Theory): B. Pharmacy |
| Academic Year: 2024-25 | Name of Teacher: Ms.D.P.Chavan |

I] Course Outcomes: Students shall able to

CO1: Study physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.

CO2: Understand formulation and evaluation of tablets, capsules and liquid orals.

CO3: Study the production, packaging and stability testing of capsules.

CO4: Study the production, aseptic processing and evaluation of parenterals and ophthalmic dosage form.

CO5: Understand formulation of cosmetics such as cold cream and vanishing cream

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| Sr. No. | Topic | No. of Lectures required | | | PPT as per guidelines (Y/N) | Notes (Y/N) | Question Bank (Y/N) | GPAT Questions (min 10) (Y/N) | Innovative Teaching method Plan (if any) | Problem based learning (Y/N) | Case Studies/Industrial or Consumer application data (Y/N) |
|---------|--|--------------------------|------------|---------|-----------------------------|-------------|---------------------|-------------------------------|--|------------------------------|--|
| | | | Planned | Actual | | | | | | | |
| 01 | Unit-I: (03) | | | | | | | | | | |
| | Preformulation Studies: Introduction to preformulation, goals and objectives, | 01 | 01/07/2024 | 11/7/24 | Y | Y | Y | Y | | Y | Yes |
| | Study of Physicochemical characteristics of drug substances | 01 | 01/07/2024 | 11/7/24 | | | | | | | |
| | Study of Physicochemical characteristics of drug substances | 01 | 04/07/2024 | 4/7/24 | | | | | | | |
| 02 | Unit-II: (14) | | | | | | | | | | |
| | Tablets: a. Introduction, ideal characteristics of tablets, classification of tablets. | 01 | 08/07/2024 | 8/7/24 | Y | Y | Y | Y | | Y | Yes |
| | Excipients, preformulation and Formulation of tablets, | 01 | 08/07/2024 | 8/7/24 | | | | | | | |
| | Granulation methods | 01 | 11/07/2024 | 11/7/24 | | | | | | | |
| | Compression and processing problems, | 01 | 13/07/2024 | 13/7/24 | | | | | | | |
| | Equipment's and tablet tooling. | 01 | 13/07/2024 | 13/7/24 | | | | | | | |
| | Tablet coating: Types of coating | 01 | 15/07/2024 | 15/7/24 | | | | | | | |
| | Coating materials, formulation of coating composition | 01 | 15/07/2024 | 15/7/24 | | | | | | | |
| | Methods of coating, equipment employed | 01 | 18/07/2024 | 18/7/24 | | | | | | | |

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|-----------|---|----|------------|----------|---|---|---|---|--|---|-----|
| | Methods of coating, equipment employed | 01 | 18/07/2024 | 22/7/24 | | | | | | | |
| | Defects in coating. | 01 | 22/07/2024 | 25/7/24 | | | | | | | |
| | Quality control tests: In process and finished product tests | 01 | 22/07/2024 | 25/7/24 | | | | | | | |
| | Liquid orals: Preformulation, Formulation | 01 | 25/07/2024 | 27/7/24 | | | | | | | |
| | Manufacturing consideration of syrups and elixirs | 01 | 27/07/2024 | 27/7/24 | | | | | | | |
| | Suspensions and emulsions | 01 | 27/07/2024 | 29/7/24 | | | | | | | |
| | Filling and packaging; evaluation of liquid orals official in pharmacopoeia | 01 | 29/07/2024 | 01/8/24 | | | | | | | |
| 03 | Unit-III: (08) | | | | | | | | | | |
| | Capsules: a. Hard gelatin capsules: Introduction, Production of hard gelatin capsule shells. Size of capsules | 01 | 29/07/2024 | 05/8/24 | | | | | | | |
| | Filling, finishing, special techniques of formulation of hard gelatin capsules | 01 | 01/08/2024 | 05/8/24 | | | | | | | |
| | Manufacturing defects. In process and final product quality control tests for capsules | 01 | 05/08/2024 | 08/8/24 | Y | Y | Y | Y | | Y | Yes |
| | b. Soft gelatin capsules: Nature of shell and capsule content, size of capsules, importance of base adsorption and minim/gram factors | 01 | 05/08/2024 | 10/8/24 | | | | | | | |
| | Production, in process and final product quality control tests | 01 | 08/08/2024 | 12/08/24 | | | | | | | |
| | Packing, storage and stability | 01 | 10/08/2024 | 12/8/24 | | | | | | | |

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|--|----|------------|----------|---|---|---|---|--|---|---|
| testing of soft gelatin capsules and their applications. | | | | | | | | | | |
| Pellets: Introduction, formulation requirements | 01 | 10/08/2024 | 02/09/24 | | | | | | | |
| Pelletization process, equipments for manufacture of pellets | 01 | 12/08/2024 | 05/09/24 | | | | | | | |
| 04 Unit-IV: (10) | | | | | | | | | | |
| Definition, types, advantages and limitations. Preformulation factors | 01 | 12/08/2024 | 09/09/24 | | | | | | | |
| Requirements, vehicles, additives, importance of isotonicity | 01 | 22/08/2024 | 09/09/24 | | | | | | | |
| Production procedure, production facilities and controls, aseptic processing | 01 | 24/08/2024 | 12/9/24 | | | | | | | |
| Formulation of injections, sterile powders, large volume parenterals and lyophilized products. | 01 | 24/08/2024 | 14/9/24 | Y | Y | Y | Y | | Y | M |
| Containers and closures selection, filling and sealing of ampoules, vials and infusion fluids | 01 | 26/08/2024 | 14/9/24 | | | | | | | |
| Quality control tests of parenteral products. | 01 | 26/08/2024 | 16/9/24 | | | | | | | |
| Ophthalmic Preparations: Introduction, formulation considerations | 01 | 29/08/2024 | 16/9/24 | | | | | | | |
| Formulation of eye drops, eye ointments and eye lotions | 01 | 02/09/2024 | 19/9/24 | | | | | | | |
| Methods of preparation; | 01 | 02/09/2024 | 23/9/24 | | | | | | | |

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|-----------|---|----|------------|----------|---|---|---|---|---|---|
| | labeling, containers | | | | | | | | | |
| | Evaluation of ophthalmic preparations | 01 | 05/09/2024 | 26/9/24 | | | | | | |
| 05 | Unit-V: (10) | | | | | | | | | |
| | Cosmetics: Formulation and preparation of the cosmetic preparations: lipsticks, shampoos, cold cream | 01 | 09/09/2024 | 28/9/24 | | | | | | |
| | vanishing cream, tooth pastes, hair dyes and sunscreens. | 01 | 09/09/2024 | 30/9/24 | | | | | | |
| | Pharmaceutical Aerosols: Definition, propellants, containers, valves | 01 | 12/09/2024 | 30/9/24 | | | | | | |
| | Types of aerosol systems; preformulation, formulation and manufacture of aerosols | 01 | 14/09/2024 | 31/10/24 | Y | Y | Y | Y | Y | 7 |
| | Evaluation of aerosols; Quality control and stability studies. | 01 | 14/09/2024 | 7/10/24 | | | | | | |
| | Packaging Materials Science: Materials used for packaging of pharmaceutical products | 01 | 16/09/2024 | 7/10/24 | | | | | | |
| | Factors influencing choice of containers | 01 | 16/09/2024 | 10/10/24 | | | | | | |
| | Legal and official requirements for containers | 01 | 19/09/2024 | 14/10/24 | | | | | | |
| | Stability aspects of packaging materials | 01 | 23/09/2024 | 14/10/24 | | | | | | |
| | Quality control tests. | 01 | 23/09/2024 | 17/10/24 | | | | | | |

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II) Examination

| | |
|--|----------------------------------|
| Syllabus for 1st Sessional Examination | Date: 24/8/24 - 30/8/24 |
| UNIT 1 and 2 | |
| Syllabus for 2nd Sessional Examination | Date: 21/10/24 - 25/10/24 |
| UNIT 3 and 4 | |

III) Plan for Weak Students Improvement: Extra lectures and solving University question paper/s

IV) Content beyond Syllabus: BCS Classification

V) Continuous assessment Methods: Assignments/Open book exam



HOD

Dr. N.A. Thombre



Principal

Dr. S. J. Kshirsagar

Assignment 1

List out the various abbreviations, short forms used in prescriptions and their interpretation

Introduction:

The prescription is one of the most important therapeutic transaction, between physician and patient. The word "prescription" derive from pre (before) and scription (writing written) which denotes that it is an order that must be written down before or for the prescription and administration of drug. Commonly the term prescription is used to mean order to take certain medication. prescription - A medical prescription (Rx) is an order (often in written form) issued by a qualified health care professional (eg. physician and dentist) to a pharmacist or other therapist for a treatment (medicine or device) to be provided to their patient.

Parts of prescription -

1) Date of the prescription -

The date of the prescription should be at the top of the prescription.

2) Name, age and weight of the patient -

The name, age weight of the patient should be written in this part.

This one part is very important because of the identification purpose.

3] Superscription-

The superscription is the part of the prescription contain a symbol "Rx" means "Take" Thou "It's latin word English meaning you take. Basically the writer of the prescription praying to the god to get the patient well soon.

4] Inscription

The inscription is the part of the prescription contain the composition of the medicine and amount of dosage.

Example - paracetamol 500 mg, paracetamol 650 mg etc.

5) Subscription.

The subscription is the part of the prescription, contain the direction to dispense the dosage form.

The number of dosage units and the quantity to be given, written in this part of the prescription.

Example - Tab paracetamol - 10 [that means 10 pieces paracetamol tablet]

6] Signatura.

The signatura is the part of the prescription contain the direction given by the writer.

to the patient, how and when should the medicines are taken. The direction are given in latin short cuts.

Example - "TDS" means three times a day
"BID" means "bis in die" or twice a day "a.c" means before a meal etc.

7] Signature -

The signature is the part of the prescription. contain the signature of the medical practitioner, who writes the prescription.

8] Registration Number and seal-

In this part, the registration number of the medical practitioner who writes the prescription is given. The stamp of the particular doctor



a) Simple prescription

Those written for a single component or prefabricated product and not requiring compounding or admixture by the pharmacist.

b) Compound or complex prescription

Those written for more than a single component and requiring compounding

c) Electronic prescription

The use of electronic means for the generation and transmission of prescriptions is used and accepted in some countries

d) Hospital prescription

a medication order form used in the hospital setting. In addition other forms may be used within a hospital by specialized units such as infectious disease, cardiac care, pediatrics and others.

e) Narcotic prescription

contains a narcotic substance or other habit forming drugs. It must contain in addition to the content of the simple prescription, the address of the patient to the narcotic registry number of the prescriber. Such prescription should be

written by ink or typewriter. the quantities of the narcotic substance must be written in words and numbers

An example of a good prescription

Dr. Onkar Bhawe
M.B.B.S., M.D., M.S. [Reg. No: 270988]
Mob No: 8983390126

Care Clinic
Kothrud, Pune - 411038
Ph: 094233 80390, Timing: 09:00 AM
- 02:00 PM | Closed: Thursday

Date: 02-Jan-2020, 03:26 PM

ID: 14 - DEMO PATIENT (M) / 9 Y
 Address: KOTHRUD, PUNE
 Weight(kg): 50, Height (cms): 130, BP: 120/80 mmHg

Referred By: Dr. Rane

Known History Of
 * ABC
 * PQR

| Chief Complaints | Clinical Findings |
|--------------------|-------------------|
| * ACIDITY (2 DAYS) | * DEMO FINDING 1 |

Notes:
 SAMPLE INTERNAL NOTE

Diagnosis:
 * FEVER

Procedures conducted
 * DEMO PROCEDURE

| Medicine Name | Dosage | Duration |
|-------------------------|-------------------------------------|-------------------------|
| 1) TAB. DEMO MEDICINE 1 | 1 Morning, 1 Night (Before Food) | 8 Days (Tot: 20 Tab) |
| 2) CAP. DEMO MEDICINE 2 | 1 Morning, 1 Night (Before Food) | 8 Days (Tot: 20 Cap) |

Investigations:
 * X-RAY
 * P-53

Advice Given:
 * AVOID OILY AND SPICY FOOD



Follow Up: 17-01-2020

Signature
 Dr. Onkar Bhawe
 M.B.B.S., M.D., M.S.

Appendix – 1

A typical format for the assessment of an Assignment

| | |
|---|--|
| Name of the College: | MET IOP. |
| Name of the Student: | Pragati Shivnath kandekar |
| Academic Year of the Student: | 2023-2024 |
| Name of the Subject: | community pharmacy Management |
| Title of the Assignment: | List out the various abbreviations used in prescription and their interpretation |
| Date on which the Assignment was given: | 26-09-2023 |
| Date on which the Assignment was submitted: | 06-10-2023 |
| Name & Designation of the Evaluator: | Mrs. Suchita Shirasath |

| Assessment Criteria | Score | Score out of 5/10* | Comments if any |
|---|---|--------------------|-----------------|
| a. Relevance with the content | 04 | 04 | |
| b. Use of resource material | 04 | | |
| c. Organization & mechanical accuracy | 04 | | |
| d. Cohesion & coherence | 04 | | |
| e. Language proficiency & Timely submission | 04 | | |
| Total Score (Out of 25) | 20 | | |
|  Signature of the Student with Date |  Signature of the Teacher with Date | | |

Directions for mark grading: 5 – Excellent; 4 - Very Good; 3 – Good; 2 – Satisfactory; 1 – Poor

* Total Score (out of 25) is reduced to Score (out of 5/10) as per the course requirement

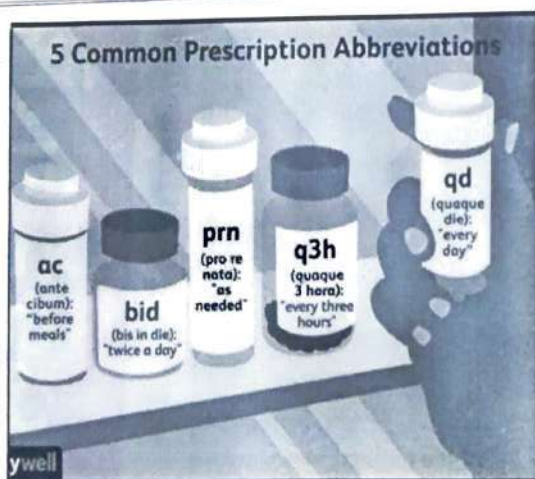
Short forms of prescription- Abbreviation Latin

| Abbreviation | Latin | Meaning |
|--------------|--------------------------------|---|
| • aa | ana | of each |
| • ad | ad | up to |
| • ac | ante cibum | before meals |
| • ad | auris dextra | right ear |
| • ad lib | ad libitum | Use as much as one desires, freely |
| • admov | admove | apply |
| • agit | agita | stir / shake |
| • alt. h. | alternis horis | every other hour |
| • a.m. | Ante Meridiem | morning, before noon |
| • amp | | ampule |
| • amt | | amount |
| • aq | aqua | water |
| • a.l., a.s. | auris laeva, auris sinistra | left ear |
| • A.T.C. | | around the clock |
| • a.u | | both ears |
| • bis | | twice |
| • b.d / bid | | twice daily |
| • B.M | | bowel movement |
| • bol | bolus | as a large single dose |
| • B. | | blood sugar areas |
| • B.S. | | body surface areas |
| • B.S.A. | | body surface areas |
| • BUCC | | inside cheek |
| • cap. caps | | capsule |
| • c | cum | with [usually written with a bar on the top of the c] |

| | | |
|---------------|---------------------|---------------------------------------|
| c | cibus | food |
| cc | cum cibus | with food (but also cubic centimetre) |
| cf | | with food |
| comp | | compound |
| cr. crm | | cream |
| DAW | | Dispense as written |
| dc, Dlc, disc | | discontinue |
| dieb. alt | diebus alternis | every other day |
| dil | | dilute |
| disp. | | dispense |
| div | | divide |
| d.t.d. | dentur tales doses | give of such doses |
| D.W. | | distilled water |
| elix | | elixir |
| e.m.p | ex modo prescri pto | as directed |
| emuls | emulsum | emulsion |
| et | et | and |
| ex aq | ex aqua | in water |
| fl, fld | | fluid |
| ft | fiat | make, let it be made |
| g | | gram |
| gr | | grain |
| gtt (s) | gutta (e) | drop (s) |
| H | | hypodermic |
| h.hr | hora | hour |
| h.s. | hora somni | at bedtime |
| ID | | Intradermal |

| | | |
|------------|-----------------------|---------------------------|
| IM | | Intramuscular |
| inj. | injectio | Injection |
| IP | | Intraperitoneal |
| IV | | intravenous |
| IVP | | intravenous push |
| IVPB | | intravenous piggyback |
| LAS | | Label as such |
| LCD | | coal tar solution |
| lin | linimentum | Liniment |
| liq | liquor | Solution |
| lot | | lotion |
| M | Misce | Mix |
| m.min | minimum | a minimum |
| m.d.u | more dicto utendus | to be used as directed |
| mg | | milligram |
| non rep | non repetatur | no repeats |
| noct | nocte | at night |
| NS | | normal saline |
| o.d | oculus dexter | right eye |
| o.s | oculus sinister | left eye |
| o.u | oculus uterque | both eye |
| per | per | by or through |
| q.d | quaque die | every day |
| q.i.d | quater in die | four times a day |
| q.o.d | | every other day |
| qwk | | every week |
| s.c. succ. | | subcutaneous |
| Sol | solutio | solution |

| | | |
|-----------|---------------|-------------------|
| • stat | statim | immediately |
| • supp | suppositorium | suppository |
| • susp | | suspension |
| • syr | syrupus | syrup |
| • tab | tabella | tablet |
| • tbsp | | tablespoon |
| • tsp | | teaspoon |
| • tid | ter in die | three times a day |
| • top | | topical |
| • u.d. ut | ut dictum | as directed |
| • vag | | vaginally |
| • w | | with |
| • w/o | | without |
| • x | | times |



Conclusion -

Prescription writing is a fundamental task performed by health professionals. Incorrect prescription may lead to fatal consequences including death. The present article is an attempt to gain insight into thoughtful and deliberate ways of prescribing to prevent medication errors.

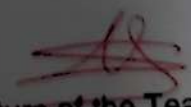


The condition for error free prescribing must be warranted. While writing the prescriptions, it must be ensured that it is appropriate and is in the best interests of the patient. It is often assumed that once the appropriate drug is chosen, the prescription correctly written and explained, that it will be taken correctly by patient. As medical practice has become more complex, the scope of meaning of the term, prescription has broadened to also include clinical

Appendix - 1

A typical format for the assessment of an Assignment

| | |
|---|------------------------|
| Name of the College: | MET IOP Nashik |
| Name of the Student: | Pragati kandekar |
| Academic Year of the Student: | 2023-24 |
| Name of the Subject: | BCP |
| Title of the Assignment: | cardiovascular disease |
| Date on which the Assignment was given: | 26-9-23 |
| Date on which the Assignment was submitted: | 6-10-23 |
| Name & Designation of the Evaluator: | Mrs. Sarika V. Patil |

| Assessment Criteria | Score | Score out of 5 / 10* | Comments if any |
|---|--|----------------------|-----------------|
| a. Relevance with the content | 4 | 04 | — |
| b. Use of resource material | 4 | | |
| c. Organization & mechanical accuracy | 4 | | |
| d. Cohesion & coherence | 4 | | |
| e. Language proficiency & Timely submission | 4 | | |
| Total Score (Out of 25) | 4 | | |
| Signature of the Student with Date <i>Pragati Kandekar</i> | Signature of the Teacher with Date  | | |

Directions for mark grading: 5 - Excellent; 4 - Very Good; 3 - Good; 2 - Satisfactory; 1 - Poor

* Total Score (out of 25) is reduced to Score (out of 5/10) as per the course requirement.

Assignment 1

cardiovascular disease Aortic stenosis -

Name: MRS. LATARAI SONAWANE
Ref. By: DR. MOHIT CHAUDHARI

Date: 05/10/2023
Age/Sex: 60/F

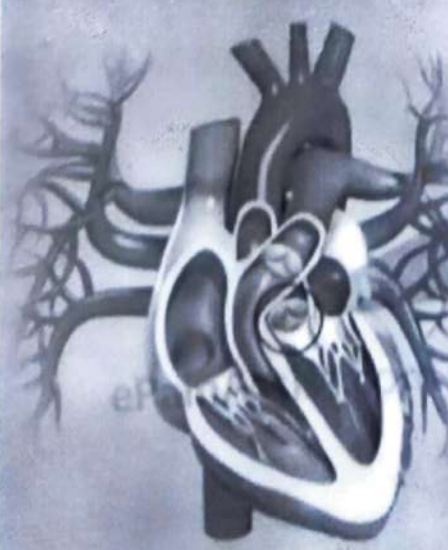
| | MM | | MM |
|-------------|-------|-------------|-------|
| Aortic root | 19 mm | LA diameter | 20 mm |
| IVSs | 15 mm | PWs | 14 mm |
| LVIDd | 44 MM | LVIDs | 22 |
| EF | 65% | E<A | |

2D ECHO REPORT: SUMMARY

- o CONCENTRIC LVH.
- o MILDLY DILATED LA. RA RV NORMAL SIZE AND SHAPE.
- o GOOD LV SYSTOLIC FUNCTION WITH LVEF 65%.
- o SCLEROCALCIFIC AORTIC VALVE. MILD MR.
- o GRADE I DIASTOLIC DYSEUNCTION.
- o MILD TR. NO PAH. IVC = 11 mm. Collapsing
- o PERICARDIUM NORMAL
- o NO INTRACARDIAC CLOT OR VEGETATION.


Aortic Stenosis

It is a heart condition where due to the narrowing of the aortic valve the heart is unable to pump out enough blood that is required.




Normal Aortic Valve

Close




Open




Narrowed Aortic Valve

Close



Open



Aortic Stenosis -

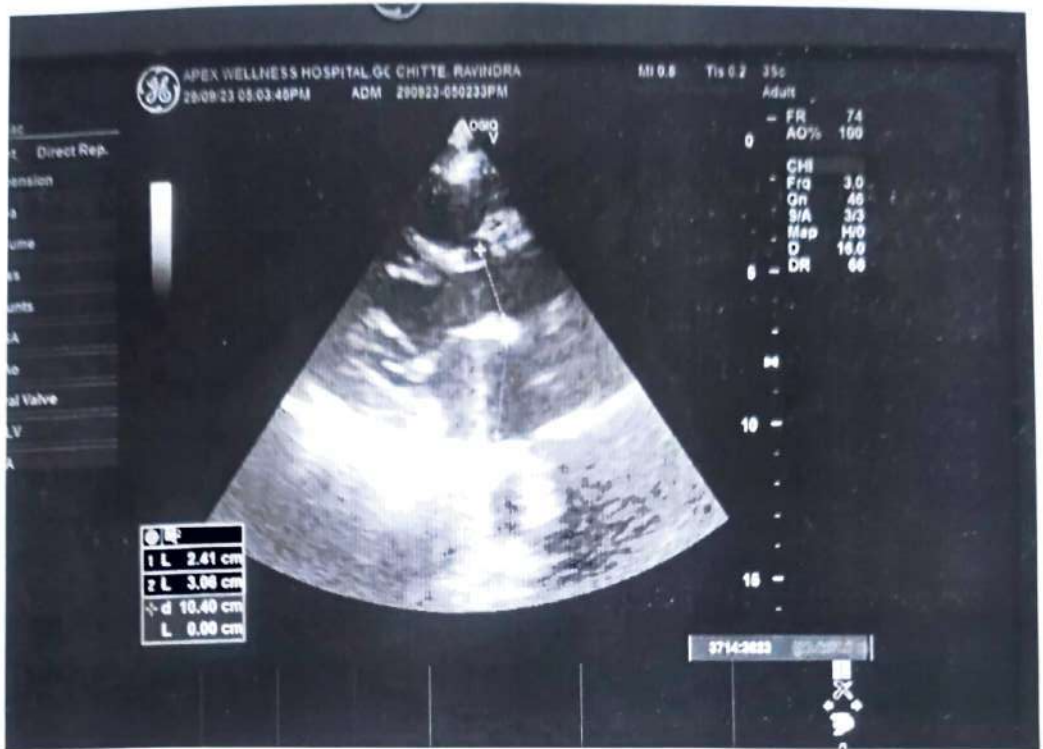
In Aortic stenosis (AS) the aortic valve doesn't open completely, restricting the blood flow from the left ventricle of the heart to the aorta and the rest of the body. The aortic valve is between the left ventricle and aorta (the largest artery in the body). The main function of the aortic valve is to open and close and allow blood to flow from the left ventricle of the heart to the aorta through which oxygen rich blood is supplied to the rest of the body and the coronary arteries.

What is Aortic stenosis -

The aorta which is the main artery transmits the blood from the heart to the body via the aortic valve. The aortic valve when narrows, intercepts the valve and obstructs the blood flow. This narrowing is called aortic stenosis.

When the aortic valve obstructs the heart needs to put an extra effort in pumping blood to the body. This would eventually minimize the blood amount that is pumped out from the heart and may weaken the heart muscle.

A surgery is required to replace the aortic valve in severe cases. Failing to do so may lead to heart problems.



Signs and symptoms of Aortic stenosis-
The signs and symptoms of Aortic stenosis include-

- pain in the chest (Angina pectoris)- chest pain in aortic stenosis is instigated by hard work and gets relieved with rest.
- palpitations- High heart beats which can be felt.
- syncope- weakness, fainting or dizziness with activity.
- Heart failure- Dyspnea caused by exertion, paroxysmal nocturnal dyspnea and orthopnea
- cough- possibly bloody.

- Aortic stenosis - could induce systolic hypertension. Although severe aortic stenosis may barely increase the systolic blood pressure in patients.
- The carotid arterial pulse may typically have decreased amplitude, delayed and high peak and a slow downslope in critical aortic stenosis.
- In a low percentage of the patients, the first symptom is sudden death usually during arduous hard work. The reason for sudden death is unidentified, however the inadequate blood flow in the coronary arteries and the abnormalities in the heart rhythm may be the reason.

In children and infants, symptoms of Aortic stenosis include -

- Getting tired easily (in mild cases)
- Unable to gain weight.
- Serious breathing problems that would develop within few days of birth

The mild or moderate aortic stenosis in children may get worse with age. There is a higher risk of bacterial endocarditis - a heart infection.

Causes of Aortic stenosis-

Aortic stenosis may be congenital, but generally it matures in later life. Children suffering from aortic stenosis may have other conditions since birth. Calcific aortic stenosis is a type of aortic stenosis that mainly occurs due to calcium deposits that narrow the valve. This happens to people who have abnormal aortic or bicuspid valves. Rarely calcification develops if the patient has undergone chest radiation.

Rheumatic fever is one of the other causes which develop scarlet fever or strep throat. However, after a period of 5-10 years, valve problems do not mature. In the US, rheumatic fever is becoming rarer. 2% of people over 65 years get aortic stenosis. It is more frequent in men than in women.

Pathophysiology of Aortic stenosis

A systolic pressure gradient develops between the aorta and the left ventricle and resistance to systolic ejection occurs in aortic stenosis. The outflow obstruction caused, leads to an increase in systolic pressure in left ventricle (LV).

The counterreactive mechanism to normalize the stress on LV wall, parallel replication of sarcomeres increases LV wall thickness, producing concentric hypertrophy. However, the chamber is not dilated and diastolic compliance is reduced. Eventually LV end-diastolic pressure rises, causing an increase in pulmonary capillary arterial pressures and a decrease in cardiac output. The contractility of the myocardium may diminish, leading to a decrease in cardiac output due to systolic dysfunction. This results in heart failure.

Diagnosis of Aortic stenosis-

To diagnose aortic stenosis the following tests can be undertaken

- Electrocardiogram
- Chest x-ray
- Echocardiography
- cardiac catheterization
- Exercise tests
- computerized tomography scan
- Magnetic resonance imaging.

Treatment for Aortic stenosis-

- Medications of Aortic Stenosis
- Surgical procedures for aortic stenosis.
- Balloon Valvuloplasty

- Aortic Valve Replacement
- Transcatheter Aortic Valve replacement
- surgical valvuloplasty

In addition before any medical or dental procedure is carried out, antibiotics need to be administered post the aortic valve replacement surgery. This would reduce the risk of infection in the heart tissue.

Prevention of Aortic stenosis-

- Treating rheumatic fever
- Treating the risk factors of coronary artery disease like obesity, and high cholesterol levels.
- Taking care of teeth and gums there is an associated link between endocarditis ie as infected heart tissue and gingivitis ie infected gums.

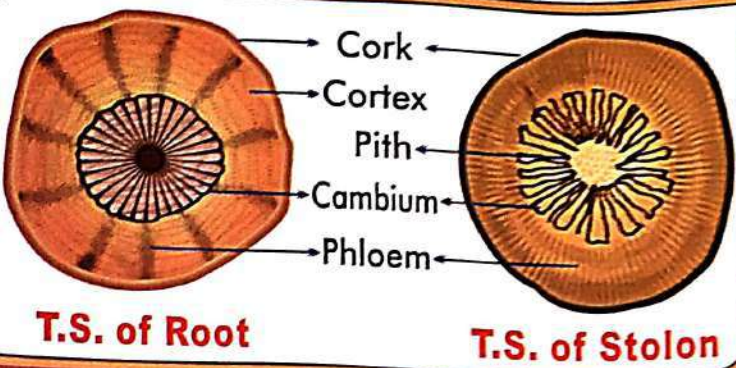
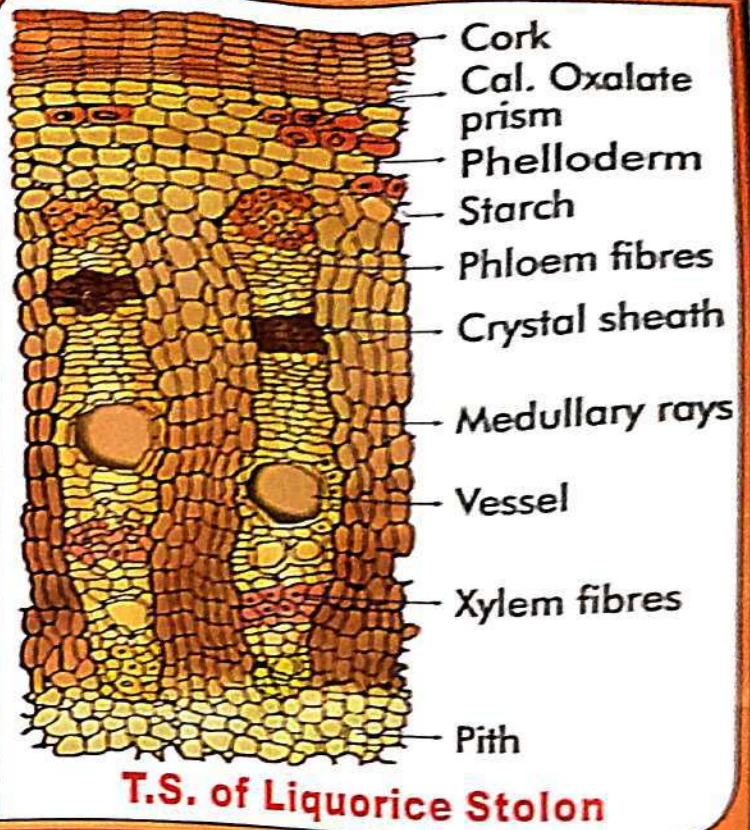
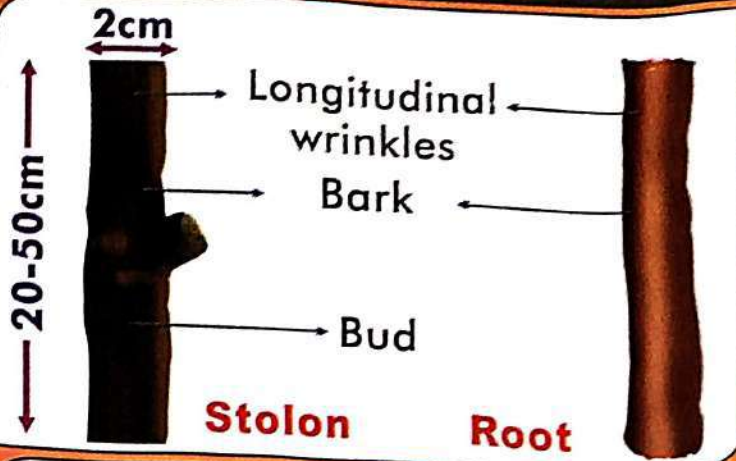
Medications-

No pill can cure or even improve your aortic stenosis, But there are some medications that may help you control your symptoms and lower the chance of having certain complications.

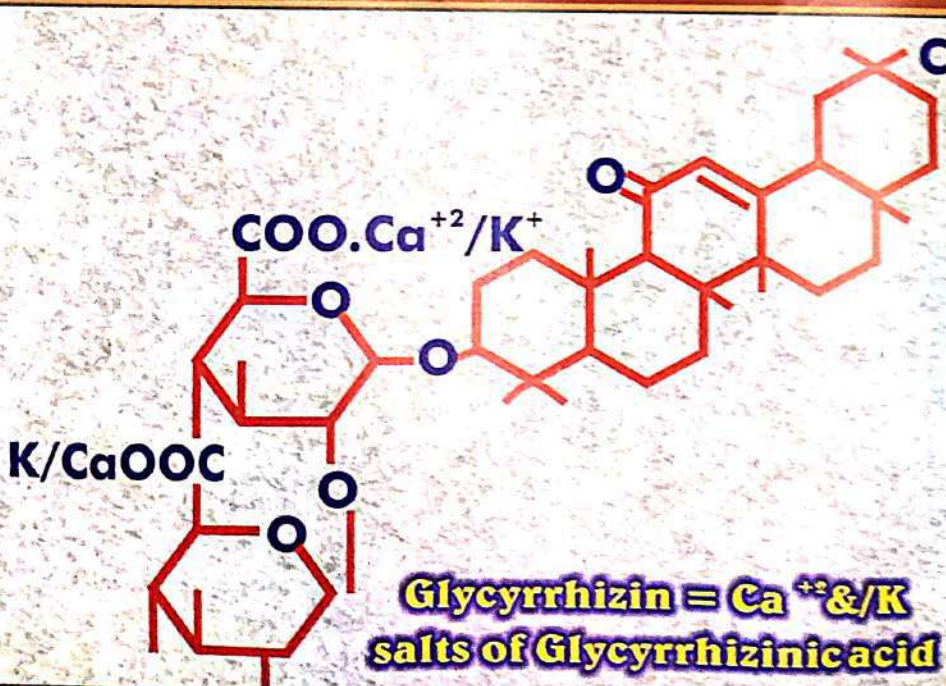
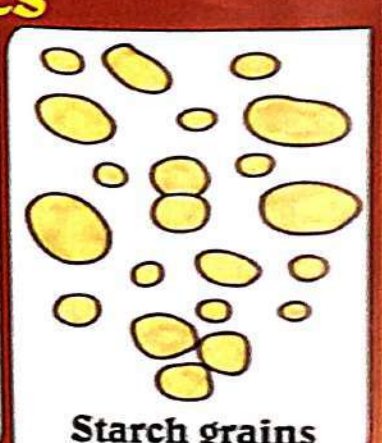
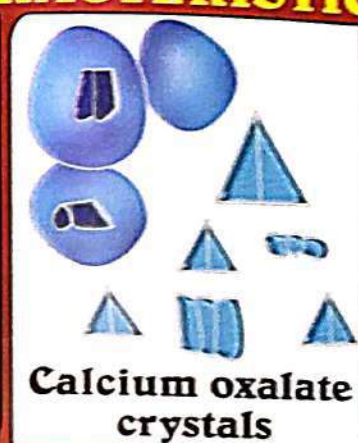
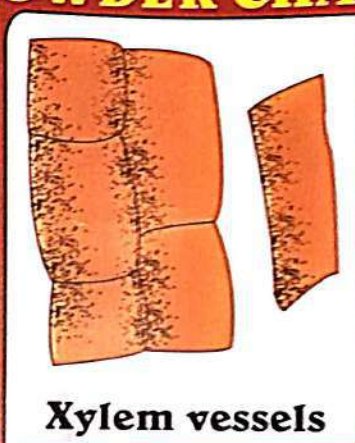
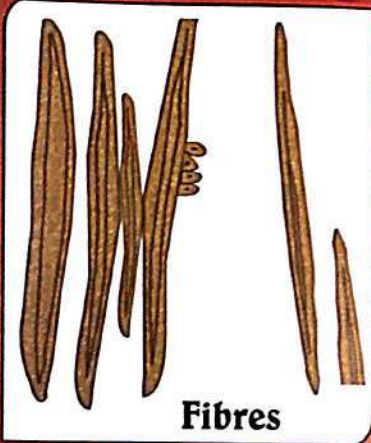
Among the medicines your doctor might prescribe are:

- ACE inhibitors, which can open blood vessels more fully.

LIQUORICE ROOT



POWDER CHARACTERISTICS



Biological Source:-
Liquorice consists of dried, peeled or unpeeled, root and stolon of *Glycyrrhiza glabra*, family Leguminosae.

Chemical constituents:-
The chief constituents of liquorice is a triterpenoid saponin known as glycyrrhizin.

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Problem Based Learning 2023-24 (DIV-A)

-+

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---|--------------------------|--|
| BP101T | Human Anatomy and Physiology I–Theory | Dr.Anjali B.Tajanpure | PBL: Analyze the anatomical and physiological adaptation that occurs in response to prolong exposure to high altitude, including respiration and circulatory system. |
| BP104T | Pharmaceutical Inorganic Chemistry – Theory | Ms. Pratiksha N. Sonwane | Problems given on preparation of solutions of different Normality and Molarity in tests Identification of Various samples by Given set of Identification tests |

Sem-II

| Course Code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---|-----------------------|---|
| BP203T | Pharmaceutical Organic Chemistry I Theory | Dr Santosh S. Chhajed | Asked to predict the product in known reaction |
| BP204T | Biochemistry – Theory | Dr. Rakesh U Shelke | PBL - Diabetes mellitus |
| BP204T | Pathophysiology – Theory | Dr.Anjali B.Tajanpure | Case study: |

Sem-III

| Course Code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--|--------------------------|--|
| BP301T | Pharmaceutical Organic Chemistry II – Theory | Ms. Pratiksha N. Sonwane | Given reactant side and tell them to find out product side from syllabus |
| BP302T | Physical Pharmaceutics I – Theory | Umesh Laddha | PBL (Quiz) on complexation |
| BP303T | Pharmaceutical Microbiology – Theory | Bhambere Deepak S | How will you conduct sterility test of Pharmaceutocal Product |
| BP304T | Pharmaceutical Engineering – Theory | Mr. Abhish Jadhav | PBL on size reduction and filtration |

2

Sem-IV

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--|--------------------------|--|
| BP401T | Pharmaceutical Organic Chemistry III– Theory | Ms. Pratiksha N. Sonwane | Search derivatives based on heterocycles and its uses in pharmacy |
| BP402T | Medicinal Chemistry I – Theory | Mr. Abhijit S. Deore | to find out drug potency on the basis of SAR study of drug |
| BP403T | Physical Pharmaceutics II – Theory | Umesh Laddha | Quiz on the chemical kinetics |
| BP405T | Pharmacognosy and Phytochemistry I– Theory | Sangle Shradha J | Find out the enzyme that are being isolated from fire flies which are incorporated into the genomes of the plant that ignites plants. (19/04/24) |

y

Sem-V

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--|-----------------------|---|
| BP501T | Medicinal Chemistry II – Theory | Dr Santosh S. Chhajed | Asked to identify the starting material in the synthesis of drugs |
| BP502T | Industrial Pharmacy-I | Dr Ahirrao S P | Problem based questions in class test on biphasic dosage form and stability considerations |
| BP504T | Pharmacognosy and Phytochemistry II–Theory | Dr. Sunita Surse | Problem based on extraction of secondary metabolites |
| BP505T | Pharmaceutical Jurisprudence – Theory | Mr. Abhijit S. Deore | Discuss the case study of Advt promoting fair skin in topic of the Drugs and magic Remedies |

Sem-VI

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---|---------------------|--|
| BP603T | Herbal Drug Technology – Theory | Dr. Sunita Surse | Problem based on Herbal Drug formulation |
| BP604T | Biopharmaceutics and Pharmacokinetics–Theor | R. T. Mogal | 1. Case study: Absorption of tetracycline Problem based learning: Influence of administration of antibiotics on half-life of drugs 3. Case study: BCS class of drug and suitable dosage form-TriCor Problem based learning: Determine absolute and relative bioavailability |
| BP605T | Pharmaceutical Biotechnology | Dr. Eknath D. Ahire | PBL on on covid 19 vaccine and A case study Clonning Techniques |
| BP606T | Quality Assurance –Theory | Mr. Abhish Jadhav | 1. RMWG-02 Title: Non-Sterile Facility Cleaning Requirements Brief Description of problem: Risk assessment used to define minimum cleaning requirements (excludes aseptic and potent compounds). |

Sem-VII

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|-------------------------------------|--|---|
| BP701T | Instrumental Method of Analysis | Dr. Sonawane | identify different configurations of HPLC system based on their mixing type |
| BP702T | Industrial Pharmacy – Theory | Dr.Nilima Abhijeet Thombre | 1. Pharmaceutical industry wanted to develop pharmaceutical formulation in research and development department. What steps needed to be considered for manufacturing process? 2. Pharmaceutical manufacturer want to develop manufacturing unit for potent API. What manufacturing measures need to be considered for the same. 3. RND manager developed pharmaceutical formulation in research and development department. In order to commence for large scale manufacturing, what requirements need to be considered for the same. |
| BP703T | Pharmacy Practice – Theory | Mr. Shubham j. Khairnar/Mrs.Suvarna Y.Bhalerao | 1. case study were discussed and suspected ADR reporting excersize by case study has been conducted. |
| BP704T | Novel Drug Delivery System – Theory | Dr.Smita Prakash Kakad | marketed product study for novel dosage forms |

Sem-VIII

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--|----------------------------|--|
| BP801T | Biostatistics and Research Methodology | Dr Sonawane/Dr Ahirrao | Regression and pharmaceutical problems in assignment |
| BP802T | Industrial Pharmacy – Theory | Dr.Nilima Abhijeet Thombre | 1. Inventor discovered API from mineral source. What development steps should be studied before its patenting. 2. Physician prescribed Ibuprofen tablet to patient. |
| BP803T | Social and preventive Pharmacy– Theory | Mr. Shubham J. Khairnar | 1. task were given to student to find out prevalence of respective disease or disorder before the launch time of respective eradication programme of corresponding disease. 2. Prevalence and statistics of smokiing and toacco induced diseases in India |
| BP804T | Cosmetic Science | Bhambere Deepak S | Suggest ideal detergent for shampoos that will not harm hair shaft |
| BP804ET | Pharmaceutical Regulatory Science | Dr.Nilima Abhijeet Thombre | 1.Inventor discovered API from mineral source. What development steps should be studied before its patenting. 2.Physician prescribed Ibuprofen tablet to patient. Patient visited to Pharmacy shop where pharmacist dispensed him OTC product instead of Proprietary medicines. Can patient accept or reject it? Justify. |

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Problem Based Learning 2023-24 (DIV-B)

Sem-I

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---------------------------------------|---------------------|---|
| BP101T | Human Anatomy and Physiology I–Theory | Dr. Rahul R. Sable | PBL:- Analyze the Anatomical and Physiological adaptation taht occure in response to prolong Exposure to high altitude including repiration amd Circulatory sytem |
| BP102T | Pharmaceutical Analysis I – Theory | Dr. Rakesh U Shelke | Problems on preparation of titrants, stastical calculation on coefficient of variance, Titration curve etc |
| BP103T | Pharmaceutics I – Theory | Ms.Devyani P.Chavan | Problem Based Learning on Pharmaceutical calculations,Posology |

Sem-II

| Course Code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---|--------------------------|--|
| BP201T | Human Anatomy and Physiology II – Theory | Dr. Rahul R. Sable | PBL:- Person unable to perform regular activities also cant write properly, unable to remember day today activities , what type of problem that old patient suffer |
| BP203T | Pharmaceutical Organic Chemistry I Theory | Dr. Dinesh Rishipathak | Designing of Reaction was asked by giving the target compound and the type of recation involved. |
| BP204T | Biochemistry – Theory | Dr. Kavita R Chandramore | Deficiency Manifestations by using case studies |
| BP204T | Pathophysiology – Theory | | advance bichemical test for identification of biomolecule |

Sem-III

| Course Code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--------------------------------------|---------------------|---|
| BP303T | Pharmaceutical Microbiology – Theory | Ms. Priya M. Gadakh | 1) Clostridium species of bacteria cannot grow even in low level of Oxygen. Explain what they are called and suggest their cultivation methods. 2) A pharmaceutical company is facing challenges with the sterilization of heat sensitive drug products. Propose alternative sterilization methods suitable for temperature sensitive pharmaceuticals, considering both efficacy and product stability. |
| BP304T | Pharmaceutical Engineering – Theory | Mrs. Sangle S. J | 1. Consider the small volume particle place in the mixer (Grinder) of larger surface area with large amount of water? Particle do not Grind properly . Give reasons 2. If a thermal resistant container with warm water placed in to refrigerator ? The inner water cool? Why? Give reason |

Sem-IV

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--|-----------------------------|---|
| BP401T | Pharmaceutical Organic Chemistry III– Theory | Dr.Rani Kankate | Find out derivaites of heterocycles and its medicinal use |
| BP402T | Medicinal Chemistry I – Theory | kavita R. Chandramore | Find out new FDA approved drugs of 2023 and identification of strcuture modofications. |
| BP404T | Pharmacology I – Theory | Mrs.Suvarna Yogesh Bhalerao | Problem based questions on parasympathetic and sympathetic nervous system,Dales vasomotor reversal phenomenon |

Sem-V

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--------------------------|-----------------------|---|
| BP502T | Industrial Pharmacy-I | Ms.Devyani P.Chavan | Details of Problem Based Learning on Q.C. tests of tablet dosage form |
| BP503T | Pharmacology II – Theory | Dr.Anjali B.Tajanpure | Case study On each topic was discussed after completion of topic. |

Sem-VI

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---|--------------------------|---|
| BP601T | Medicinal Chemistry III – Theory | Ms. Pratiksha N. Sonwane | Case study on Antibiotics |
| BP602T | Pharmacology III – Theory | Dr.Anjali B.Tajanpure | Case study On each topic was discussed after completion of topic. |
| BP604T | Biopharmaceutics and Pharmacokinetics–Theor | Ms.Devyani P.Chavan | Case study on enhancement of solubility and bioavailability |
| BP606T | Quality Assurance –Theory | Mr. Abhish Jadhav | 1. RMWG-02 Title: Non-Sterile Facility Cleaning Requirements Brief Description of problem: Risk assessment used to define minimum cleaning requirements (excludes aseptic and potent compounds). |

Sem-VII

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|---------------------------------|-----------------------------|--|
| BP701T | Instrumental Method of Analysis | Dr. Rakesh U Shelke | Identification of prominent functional group in unknown IR spectra. |
| BP703T | Pharmacy Practice – Theory | Mrs.Suvarna Yogesh Bhalerao | 1. case study were discussed for suspected ADR and reporting has been conducted. 2. Case studies discussion on hematological Blood chemistry, and urinalysis for Interpretation of Clinical Laboratory Tests |

Sem-VIII

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--|-----------------------------|---|
| BP801T | Biostatistics and Research Methodology | Dr Sonawane/Dr Ahirrao | regression and pharmaceutical problems in assignment |
| BP802T | Industrial Pharmacy-II Theory | R. T. Mogal | 1. Case study: Pilot plant scale up consideration for solids troglitazone 2. Case study: Risk assessments for cross contamination 3. Problem based learning: Scale Up and Post Approval Changes 4. Quality by Design |
| BP803T | Pharmacy Practice – Theory | Mrs.Suvarna Yogesh Bhalerao | 1. Discuss Latest WHO Disease Outbreak News (DONs), providing information on confirmed acute public health events or potential events of concern. 2. Discuss cases of covid-19 and SARS for understanding difference between |
| BP804T | Novel Drug Delivery System – Theory | Bhambere Deepak S | 1. Find the different release patterns of the same drug of the marketed formulation. Find out the reason behind formulating different release patterns. Tip: Find out CR, SR, ER and DR pattern of same drug. 2. If the drug is lipid soluble, have 2 hrs of half-life, 50% first-pass metabolism, and 40% protein binding. Find out the best DDS, Polymer and method of preparation. 3. The drug is having slight solubility in water and moderate molecular weight. The drug is having poor oral bioavailability and needs another DDS than the oral route. We want a release pattern for a longer duration. The drug permeability through the skin is also moderate. How will you formulate the formulation? |
| BP809ET | Cosmetic Science | Ms.Devyani P.Chavan | Case study on development of natural ingredient -Natural preservative |

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Problem Based Learning 2023-24 Pharm D.

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|------------------------------------|----------------------------|--|
| 1.2 | Pharmaceutics | Dr Ahirrao Sapana P | Pharmaceutical problems discussed during lectures |
| 1.3 | Medicinal Biochemistry | Mr Abhijit S. Deore | Discussing of metabolic disorder eg Gout disease and its treatment |
| 1.4 | Pharmaceutical Organic Chemistry | Mr. Shantanu S. Ghodke | Effect Activating & Deactivating groups on ESR Discussed during lecture. |
| 1.5 | Pharmaceutical Inorganic Chemistry | Mr.Sneh D Sonkamble | Class Test on Volumetric analysis |

| Course Code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|-----------------------------|-------------------------|--|
| 2.1 | Pathophysiology | Dr. P.B. Udavant | Cases w.r.t. disease entities |
| 2.2 | Pharmaceutical Microbiology | Dr. Eknath D, Ahire | PBL on COVID -19 vaccine development and A Case study on COVID -19 Virus structure |
| 2.4 | Pharmacology-I | Mr. Shubham J. Khairnar | study has been conducted. 2. to understand actual activity of |

| Course Code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|------------------------------|----------------------|--|
| 3.1 | Pharmacology-II | Dr. P.B. Udavant | Case studies w.r.t. Drugs |
| 3.2 | Pharmaceutical Analysis | Mr. Ganesh P. Shinde | 1. Calibration curve graph plotting by equation 2. Calibration curve graph plotting by |
| 3.3 | Pharmacotherapeutics-II | Dr. Akshay M. Khade | Case studies were discussed on various topics likes Cerebral Vascular Accident, Brain Injury |
| 3.4 | Pharmaceutical Jurisprudence | Dr. Rakesh U. Shelke | Case studies were discussed on various topics likes D & C act, NPDS etc |
| 3.5 | Medicinal Chemistry | Mr.Sneh D. Sonkamble | Class test on Antiprotozoal agents and anthelmintic agents |

| Course code | Name of the course | Subject I/C | Details of Problem Based Learning/ Case Studies |
|-------------|--------------------------------------|---------------------|--|
| 4.3 | Clinical Pharmacy | Dr. Akshay M. Khade | Various treatment guidelines on Hypertension, Drug Calculations |
| 4.4 | Biostatistics & Research Methodology | Sangle S. J | Plot a Histogram of the tuberculin reaction measured in 206 patients . |
| 4.5 | Biopharmaceutics & Pharmacokinetics | R. T. Mogal | Aspirin is prepared as effervescent tablet (Discussed in class) |
| 4.6 | Clinical Toxicology | Dr. Rahul R. Sable | How to decontaminate GIT system of patient at Unconscious condition |

MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity- Session on Communication and Soft Skills Development

Day and Date- Multiple theoretical and practical sessions conducted throughout August – December, 2023

| Participants. | Students | Department |
|---------------|----------|---------------------------------|
| | 110 | First Year B. Pharmacy Students |

Details of the Program:

Speaker: Mr. Tathagat Pagare, addressed the students regarding multiple outcomes of a professionally trained individual in all of the technical and non-technical fields under communication skills. The basic features such as general barriers in communication, perspectives in communication, types of communication, importance of effective listening, effective writing, interview skills, presentation skills and group discussion process were thoroughly discussed throughout all the sessions.

Program Objective Achievement

| | | | | | |
|-----|-----------------------|---|-------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | ✓ | PO7 | Pharmaceutical Ethics | ✓ |
| PO2 | Planning Abilities | ✓ | PO8 | Communication | ✓ |
| PO3 | Problem Analysis | ✓ | PO9 | The Pharmacist and society | |
| PO4 | Modern Tool Usage | ✓ | PO10 | Environment and Sustainability | |
| PO5 | Leadership Skills | ✓ | PO 11 | Lifelong Learning | ✓ |
| PO6 | Professional Identity | ✓ | | | |

Photos of the event



ACTIVITIES CONDUCTED DURING SESSIONS:

1) Introduction to mechanical process of communication : 18/9/23

- a) Source
- b) Encoding
- c) Decoding
- d) Feedback

2) Barriers in communication : 22/9/23

- a) Physiological
- b) Physical
- c) Cultural
- d) Language
- e) Gender

3) Elements of communication : 25/9/23

- a) Face to face Communication
- b) Voice & Body Language
- c) Communication Styles

4) Basic Listening & Writing Skills : 9/10/23

5) Interview Skills : 13/10/23

6) Group Discussion : 16/10/23

MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity- Training Session on "The Importance of Soft Skills"

Day and Date: Saturday, 10/02/2024.

Courtesy – MET's IOP

Time: 8.30 am to 12.30 pm

| Participants | Staff | Students | Class and Course |
|--------------|-------|----------|-------------------------------------|
| | 02 | 53 | Final Year B. Pharmacy, M. Pharmacy |

Details of the Program: The Training & Placement Cell, MET's Institute of Pharmacy had organized a session on 'The Importance of Soft Skills' on Saturday, February 10, 2024. The session was conducted by Mr. Shekhar Patil, who is Alumni of Institute and Senior Data Manager, Clinical Data Sciences, Pfizer, Mumbai. He introduced and elaborated students about various soft skills and role of these skills in career advancement. The session comprised of some games and activities.

Program Objective Achievement

| | | | | | |
|-----|-----------------------|---|-------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | ✓ | PO7 | Pharmaceutical Ethics | ✓ |
| PO2 | Planning Abilities | ✓ | PO8 | Communication | ✓ |
| PO3 | Problem Analysis | ✓ | PO9 | The Pharmacist and society | |
| PO4 | Modern Tool Usage | ✓ | PO10 | Environment and Sustainability | |
| PO5 | Leadership Skills | ✓ | PO 11 | Lifelong Learning | ✓ |
| PO6 | Professional Identity | ✓ | | | |

| | |
|------------------------------------|---|
| Objective of the Activity | <ul style="list-style-type: none">To guide students about professional behavior & to give students an overview of professional etiquettes being followed in corporate world.To impart new age nonverbal skill sets in students. |
| Beneficiary of the activity | Final Year B. Pharmacy, M. Pharmacy |
| Social Media links | https://m.facebook.com/story.php?story_fbid=pfbid02FCRdHjfqYTBzA4jm7kH6x8jQdQXiQWXPZv2A9ivY23enyQ9bheRafGAMqaccWuCl&id=100063790905651&sfnsn=wiwspwa |

Photos of the event (Viva and Report Submission):



Ms Poonam S. Wajpeyi
Coordinator

Dr. Sunita Surse
T&P Coordinator

Dr. S. J. Kshirsagar
Principal

PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3.

MET'S Institute of Pharmacy

ACTIVITY REPORT

(A.Y: 2023-2024)

Name of Activity- Soft Skill Program 'Be Employable' Prime Steps New Delhi

Day and Date-10th of February 2024 14th of February 2024 Time: 8:15 a. m to 2:45 p. m

| Participants | No. of Student | Class and Course |
|--------------|----------------|---|
| | 122 | S.Y D. Pharm - 60, S.Y- 33 & T.Y Pharm D - 29 |
| | 126 | S.Y. B. Pharm |

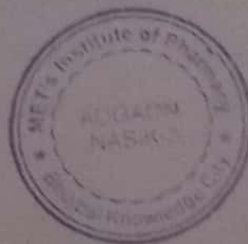
Details of the Program

'Key of the success is through training the mind' with this Aim Training and Placement Department of MET's IOP had organized a Soft Skill Program 'Be Employable'. This event was conducted by the Prime Steps New Delhi which was arranged from 10th of February 2024 to 14th of February 2024 for students Mr. Ansari and Mrs. Aakachhan Singh had put their valuable insights through expert talk which was enthusiastically attended by all students. The students should acquire employability skills by building confidence, quality improvements in the communication, body posture and development skills such as problem-solving and resilience, self and time management, organization, team working, and interpersonal skills, as well as specific sector or job-related skills. Such training not only helps with the personal and career development of young people, especially those from disadvantaged groups but also contributes to reducing unemployment and facilitate social mobility. During the session the speakers had conducted the various activities that make the session more interesting and interacting.

Program Objective Achievement

| | | | | | |
|-----|-----------------------|---|-------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | | PO7 | Pharmaceutical Ethics | |
| PO2 | Planning Abilities | ✓ | PO8 | Communication | ✓ |
| PO3 | Problem Analysis | ✓ | PO9 | The Pharmacist and society | |
| PO4 | Modern Tool Usage | ✓ | PO10 | Environment and Sustainability | |
| PO5 | Leadership Skills | ✓ | PO 11 | Lifelong Learning | ✓ |
| PO6 | Professional Identity | ✓ | | | |

| | |
|---------------------------|---|
| Objective of the Activity | To build confidence in public speaking and to make our graduates more successful in gaining employment. |
| Benefits of the activity | Students were developed in all aspects of critical thinking and problem solving, about teamwork and collaboration. Build in Professionalism and strong work ethic also improve the oral communications skill. |
| Social Media links | https://www.facebook.com/100063790905651/posts/pfbid02eqnhMsWAzQsD6YA9ZcPiwJJp9kTom79GaNSo5Yt8dRZSrzbFaWDB8kCYE6AEbcPI/?sfnsn=mo |



Photos of the event



Dr. S.N. Surse
Training & Placement Cell

Mrs. S. J. Sangle
Coordinator

Ms. K.R. Chandramore

Dr. S. J. Kshirsagar
Principal
PRINCIPAL
Mumbai Educational Trust's
Institute of Pharmacy
Adgaon, Nasik-3.



MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of activity: Soft skills and Leadership Development by Prime Step, Gurgaon

Department: Training and Placement

Date: 5th February to 8th February 2024 (4 days) Time: 8.30 am to 3.30 pm

| Participants | Students | Class and Course |
|--------------|----------|--|
| | 198 | First year D. Pharm (38), B Pharm (85), M Pharm (50) and Pharm D (25). |

Details of the Program

Speaker: Mr. Aftab Azim and Ms. Aakanchha Singh, Prime step, Gurgaon.

Topic: Soft skills and Leadership Development by Prime step, Gurgaon.

The program focuses on soft skills such as communication skills, leadership skill, interview skill, confidence build up, email writing, resume writing. Various activities were conducted in this program to identify student thinking ability and giving necessary suggestion which was helpful to student grow technically.

Programme outcomes attained

| | | |
|------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | |
| PO2 | Planning Abilities | ✓ |
| PO3 | Problem Analysis | ✓ |
| PO4 | Modern Tool Usage | |
| PO5 | Leadership Skills | ✓ |
| PO6 | Professional Identity | ✓ |
| PO7 | Pharmaceutical Ethics | |
| PO8 | Communication | ✓ |
| PO9 | The Pharmacist and society | |
| PO10 | Environment and Sustainability | |
| PO11 | Lifelong Learning | ✓ |

Photos of the event



Dr S. N. Surse

Dr A. B. Tajanpure

Dr R. R. Sable

Dr V.S. Kulkarni

Dr. S. J. Kshirsagar

MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity- 5th MET PharmaQ-2023 State Level Undergraduate Pharma Quiz Competition
 Day and Date- Tuesday, 26/09/2023

| | | |
|--------------|---------------------------------------|------------------|
| Participants | Student | Class and Course |
| 165 | B. Pharmacy (S.Y., T.Y. & Final Year) | |

Details of the Program

5th MET PharmaQ-2023, State Level Undergraduate Pharmacy Quiz Competition organized on 26th September 2023 on the occasion of World Pharmacist Day 25th September, in association with the Association of Pharmaceutical Teachers of India (APTI) Maharashtra State branch. The competition was inaugurated by Dr. Manoj Magar, Director, Research and Development Blue Cross Laboratories Ltd. Nashik was the chief guest. A total of 165 students from 55 groups from 14 different pharmacy colleges of S.Y., T.Y. & Final Year B. Pharmacy participated. Winners

- Prizes 1st = ₹ 10,000/- (Dr. D Y Patil College Of Pharmacy, Akurdi, Pune)
- Prizes 2nd = ₹ 5,000/- (MVP Samaj's College Of Pharmacy, Nashik)
- Prizes 3rd = ₹ 3,000/- (Sir Dr. M.S. Gosavi College of Pharmaceutical Education & Research, Nashik)

Program Objective Achievement

| | | | | | |
|-----|-----------------------|---|-------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | ✓ | PO7 | Pharmaceutical Ethics | |
| PO2 | Planning Abilities | ✓ | PO8 | Communication | ✓ |
| PO3 | Problem Analysis | ✓ | PO9 | The Pharmacist and society | ✓ |
| PO4 | Modern Tool Usage | ✓ | PO10 | Environment and Sustainability | |
| PO5 | Leadership Skills | | PO 11 | Lifelong Learning | ✓ |
| PO6 | Professional Identity | ✓ | | | |

| | |
|----------------------------|---|
| Objectives of the Activity | <ul style="list-style-type: none"> • To promote students for higher education. • Students motivated to GPAT • Tricks for solving the MCQ. |
| Benefits of the activity | Strengthen and increase memorizing skills and knowledge. |
| Social Media links | https://www.facebook.com/photo.php?fbid=812245187578504&set=pb.100063790905651.-2207520000&type=3 |

Photos of the event



PRINCIPAL

MET'S Institute of Pharmacy

Region: Nashik

Committee- GPAT & Pharmacy Higher Education

Coordinator- Prof. Pratap B. Pawar

METs Institute of Pharmacy
Bhujbal Knowledge City
Certificate course Summary

Certificate course summary

| Sr. No | Date | Name of Speaker | Details of Speaker | Topic | Class and number of participant | Name of co-ordinator |
|--------|--------------------------------|--|--|--|---|---|
| 1. | 05/02/2024 to 08/02/2024 | Mr. Aftab Azim Ms. Aakanchha singh | Motivational Speaker and senior trainer Senior personality development trainer | Soft Skills and Leadership Development | First year D pharm (38). B pharm (85). M pharm (50). Pharm D (25). | Dr. Sunita Surse Dr. Anjali Tajanpure Dr. Rahul Sable |
| 2. | 10/02/2024- 14/02/2024 | Mr. Aftab Azim Ms. Aakanchha singh | Motivational Speaker and senior trainer Senior personality development trainer | Soft Skills and Leadership Development | S Y D Pharm(60). S Y and T Y Pharm D (29). S Y B pharm (126) | Mrs S J Sangle Ms K R Chandramore |
| 3. | 09/03/2024- 09/04/2024 | Mr Amol Gosavi | Assistant Professor | Basic course for Python | 55 (M.Pharm First year) | Dr. S.S.Sonawane, Ms. V.S.Kulkarni |
| 4. | 21/01/2024 | Mrs Archana Gawade | Director of Elite institute of Pharma skills. | Advance Diploma in Pharmacovigilance and clinical research | M Pharm Pharmacology (04) | Mrs.Suvarna Y. Bhalerao |
| 5. | 26/02/2024- 28/02/2024 | Dr.Sandeep Sonawane Mr Rakesh Shelke Mr Rohan Ahire | | A certificate course on "Analytical Skills Development" | M pharm (Pharmaceutical Chemistry) (09) | Dr.Sandeep Sonawane Mr Rakesh Shelke Mr Rohan Ahire |

METs Institute of Pharmacy
Bhujbal Knowledge City
Certificate course Summary

| | | | | | | | |
|----|------------|---------------------------------------|-----------------------------------|---|-------------|---|---------------------|
| 6. | 26/02/2024 | Ganesh Jagadishan | GJ's Anahata, Mumbai | MET-Align course/sessions | Meditataion | B. Pharm, Pharm D and D. Pharm First year | Ms. V.S.Kulkarni |
| 7. | 26/2/2024 | Ms Hetal Mundra Ms Saniya Bhalerao | Community Architect, riidl mumbai | The certificate course on innovation entrepreneurship. TRAILBLAZE | and MET | First B Pharm and Pharm D (150). | Ms. Sanita Bhalerao |



Dr. Sanjay J Kshirsagar

Principal



MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity- A certificate course on "Analytical Skills Development"

Day and Date - Monday to Wednesday; 26/02/2024 to 28/02/2024

| Participants | Student | Staff | Class and Course |
|--------------|---------|-------|--|
| | 09 | 03 | M. Pharmacy (Pharmaceutical Chemistry) |

Details of the Program


The Certificate course is designed to provide participants with comprehensive knowledge and practical skills in the field of analytical testing within the pharmaceutical industry. This course equips learners with the necessary expertise to operate and maintain analytical instruments and equipment commonly used in drug analysis. Over three days (30 hours) this hands on training will offer participants the opportunity to learn the important aspects of HPLC, FTIR and IPQC test, its theory, method development, sample preparation including handling and troubleshooting of all the instruments.

Nine (09) students registered for certificate course on Analytical skills development course. Dr. Sandeep Sonawane, Professor; delivered lecture on Basic theory, Instrumentation, applications and IR interpretation. Dr. Rakesh Shelke, Assistant Professor, focused on Basic theory, Instrumentation, applications of HPLC to quantitative analysis Method development and application of HPLC in Pharma field and Mr. Rohan Ahire, Assistant Professor, Mumbai Education Trust institute of Pharmacy, Nashik delivered talk on Theory of IPQC test and official guidelines of it.


| | |
|----------------------------|---|
| Objectives of the Activity | To impart basic practical skills in advanced instrumental analysis. Actual sample analysis and hands on training of different instruments like IR, HPLC, and IPQC test apparatus etc. |
| Benefits of the activity | Students are expected to demonstrate actual analysis using sophisticated instruments. They should demonstrate troubleshooting abilities during actual analysis. |


Photos of the event



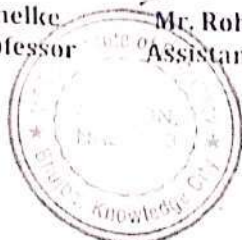

Dr. Sandeep Sonawane
Professor


Dr. Rakesh Shelke
Assistant Professor


Mr. Rohan Ahire
Assistant Professor


Dr. Sanjay J. Kshirsagar

PRINCIPAL
MET'S Institute of Pharmacy
Adgaon, Nashik-3.



MET's, Institute of Pharmacy
Bhujbal Knowledge City,
Adgoan, Nashik-422003

NPTEL Participation Summary


| Academic Year 2020-21 | | |
|------------------------------|---------|-------|
| | Student | Staff |
| Enroll No. | 73 | 4 |
| Registered No. | 3 | 4 |
| Qualified No. | - | 4 |
| Academic Year 2021-22 | | |
| | Student | Staff |
| Enroll No. | 337 | 38 |
| Registered No. | 62 | 10 |
| Qualified No. | 45 | 9 |
| Academic Year 2022-23 | | |
| | Student | Staff |
| Enroll No. | 159 | 29 |
| Registered No. | 57 | 7 |
| Qualified No. | 36 | 6 |
| Academic Year 2023-24 | | |
| | Student | Staff |
| Enroll No. | 484 | 29 |
| Registered No. | 237 | 10 |
| Qualified No. | 158 | 06 |

Principal



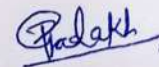
Dr. S. J. Kshirsagar

SPOC



Dr. Smita P. Kakad

Coordinator



Ms. Priya M. Gadakh

Bhujbal Knowledge City
MET's Institute of Pharmacy, Adgaon, Nashik

Index of Industrial Visit 2023-24

| Sr. No. | Date | Name of Industry | Students Benefited | Staff Benefited | Coordinator |
|---------|------------|---|------------------------------|---|---------------------|
| 1 | 27/08/2023 | Advanced Enzymes Technologies Ltd. Sinnar | Final year B.Pharm | 1. Mr. A. S. Deore 2. Mrs.Suvarna Bhalerao | Mr. A. S. Deore |
| 2 | 15/10/2023 | Vital Healthcare Pvt. Ltd. Satpur, MIDC, Nashik | Final year B.Pharm | 1. Mr. A. S. Deore | Mr. A. S. Deore |
| 3 | 26/10/2023 | Anish Pharma Equip Pvt. Ltd. | - | Staff of Pharmaceutics Department | Dr. Nilima Thombare |
| 4 | 15/12/2023 | Yugandhar Pharma Pvt. Ltd. | 2 nd Year B.Pharm | 1. Mr. A. S. Deore 2. Mr. Abhish Jadhav | Mr. Abhish Jadhav |
| 5 | 19/04/2024 | Maxheal Pharmaceutical India Ltd. | 1 st Year B.Pharm | 1. Mr. A. S. Deore 2. Mr. Rohan Ahire | Mr. A. S. Deore |



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MET's Institute of Pharmacy
Adgaon, Nashik-3.



METs, Institute of Pharmacy,
Bhujbal Knowledge City, Adgaon,
UG Project Student List 2023-24

Final Y B. Pharm


Sem-VIII

| Group No. | Name of the student | Name of Guide | Title of the Project |
|------------------|-----------------------------|----------------------|---|
| 1 | Kothawade Madhuri Ashok | Dr. Deepak bhambere | A comparative cross sectional descriptive market survey of various brands of pantoprazole |
| | Lade Harshali Dadaji | | |
| | Shirsath Pooja Uttam | | |
| | Malle Rakhi Ashok | | |
| | Pardeshi Nisha Manoj | | |
| 2 | Bedse Sushant Yuvraj | Mrs. Devyani chavan | Polyherbal premix: Antiurolithic activity |
| | Chaudhari Tejas Pramod | | |
| | Dalvi Prathamesh Sharad | | |
| | Mali Himanshu Sadashiv | | |
| 3 | Bhadgale Srushti Sanjayrao | Mrs. Priya gadakh | Formulation and Evaluation of Herbal Hair Mask |
| | Bhoi Jagruti Ashok | | |
| | Devare Gauri Pinkesh | | |
| | Godse Sanika Sunil | | |
| 4 | Khule Akshada Prashant | Mr. Ganesh shinde | Formulation and Evaluation of Herbal Antifungal Cream |
| | Mate Kanchan Haribhau | | |
| | More Prajakta Ganesh | | |
| | More Sakshi Kitan | | |
| 5 | Salunke Saurbh Sunil | Ms.Pratiksha Sonwane | Formulation and evaluation of antibacterial deodorant powder |
| | Pingale Pratiksha Balasaheb | | |
| | Patil Aditi Prashant | | |
| | Mahale Kaushal Somnath | | |
| | Patil Vaishnavi Nilesh | | |
| 6 | Chavan Atharva Subhash | Dr. S. P. Ahirrao | Leave-On Herbal Hair Conditioner |
| | Parik Prathumesh Yogesh | | |
| | Patil Dhiraj Jitendra | | |
| | Wagh Atharva Ravindrasingh | | |
| 7 | Nere Tejaswini Sunil | | |
| | Patil Ovi Pravinkumar | | |
| | Thattekar Srushti Vijaynand | | |


| | | | |
|----|---|------------------------|--|
| | Shinde Vaishnavi Dhananjay Shirole Sayalilayprakash | Mr. Rohan ahire | Formulation and evaluation of herbal face serum |
| 8 | Ashte Amrata Mahadev Dalavi Kamini Hiranman Indave Mayuri Milind Sayed Laiba Jalil | Mr. Abhish jadhav | Formulation and evaluation of Herbal Hair Growth Oil, serum and cream. |
| 9 | Pradhan Pratik Deelip Gawai Srushti Arun Sanap Sakshi Sanjay Lasure Vedashree Mangesh | Mr. shantanu ghodke | Pharma AI nexus: A Comprehensive Platform for Pharmacy Software and AI Tools Integration |
| 10 | Nirbhavane Roshan Balu Sathe Dampal Annasaheb Yeola Vedant Rajesh | Mrs. Sarika V. Patil | Formulation and Evaluation of Spirulina Infused Gummies |
| 12 | Sonawani Rajas Rahul Vadakkedath Sneha Sathian Dererushikesh Bapurao Khatane Priyanka Yamaji | Mrs. Vaidehi gaidhani | Artificial Intelligence in Regulatory Affairs |
| 13 | Chokhande Swati Ganpat Pawara Pooja Keshav Sakharkar Mayuri Prakashrao Shaikh mohammednoor Sajid Shaikh Siftain Shabbir | Dr. Eknath D. Ahire | Comparative study of various brand and generic tablet |
| 14 | Barhate Kajal Ganesh Jadhav Diganti Madhav Kasliwal Anurag Santosh Shaikh Faizan Naushad Khetmalas Vaishnavi Dattatraya- | Ms. Smita kothmire | Formulation of Ayurvedic Tea to Overcome Hormonal Imbalance |
| 15 | Beigh Danish Ashraf Jadhav Pratiksha Tukaram Pagar Neha Sahebrao Shaikh Muskan Rauf Rathod Sakshi Prakash | Ms. Vaishnavi kulkarni | Development and Evaluation of Herbal formulation for diabetic wound healing |
| 17 | Patil Geetanjali Kashinath Shaikh Afifa Khanam wiqarahmed Thakare Nikita Sahebrao Yeola Sakshi Bharat | Mr. Tathagat pagare | A radicals approach to treat fungal inspection using trasdermal spray |

| | | | |
|----|---------------------------|------------------------|--|
| | Ugale Pranali Kailas | | |
| 18 | Sonar Akshay Kantilal | Ms.poonam wajpayi | Comparative analysis of Sunflower oil and its Rancid (household) oil- lead cause of CVS disease and various risk to human brain. |
| | Bhavsar Gitika Gajanan | | |
| | Shah romilratnapal | | |
| | Gadekar Rashmi Ravindra | | |
| | Patil Laxmi Vinod | | |
| 19 | Banate Siddesh Mohan | Dr. Sunita surse | Formulation Of Herbal Mouthwash |
| | Bhagwat Ankush Vilas | | |
| | Vanve Jivan Anil | | |
| | Nangare Om Bhagavan | | |
| | Vanve Abhishek Anil | | |
| 20 | Ghumare Prasad Arun | Prof. Shubham khairnar | Bonducella rasayana (sagargoti chyawanprash) |
| | Jane Sakshi Shivaji | | |
| | Handore Aditi Dinesh | | |
| | Khambayat Nitin Chintaman | | |
| | Rathod Nandini Suresh | | |
| 21 | Kathe Ashwini Ravindra | Dr. Rahul Sable sir | Herbal lozenges for Mouth ulcer |
| | More Skashi jagannath | | |
| | Narole Niranjana Mukund | | |
| | Pachokar Priyanka Nitin | | |
| | Wakchoure Santosh Laxman | | |
| 22 | Dongare Adity | Mrs.Suchita shirsath | Polyherbal hair gel formulation |
| | Kadam Smruti | | |
| | Shaikh Mustabshira | | |
| | Khairnar Nivedita Vijay | | |
| | Mirajkar Gaurav Mandar | | |
| 23 | Pimpale Pushpalata | Prof. Pratap pawar | Formulation and evaluation of polyherbal Anti-inflammatory cream |
| | Palvi Sunil Popat | | |
| | Gavit Manish Gону | | |
| | Shinde Akshda Vinod | | |
| 24 | Bedade Sakshi Mahendra | Mrs. Suvarna Bhalerao | Formulation of Topical Emulgel |
| | Bhalerao Sakshi Arun | | |
| | Gholap Rutuja Ganesh | | |
| | Gosavi Kajol Sanjay | | |
| | Gite Sanskruti Santosh | | |
| 25 | Nikam Isha Yogesh | Mr. Sneha.d Sonkamble | Development of multipurpose topical herbal gel) |
| | Udgire Prashant Sanjay | | |
| | Gatade Anil Tanmay | | |
| 28 | Kshatriya Kunal Gopal | Prof. Shubham Khairnar | Formulation and Evaluation Of Polyherbal |

| | | | |
|----|--|----------------------|--|
| | Ingle Rohit Bhaurao Kedare Yogesgh Ravindra Khairnar Kalpesh Deepak | | Pain Relief Gel |
| 29 | Deore Mayuri Yashwant Watpade Gayatri Vasant Chakor Vaishnavi Eknath Aringale Payal Deepak Halde Apurva Rajesh | Mr. Rajendra mogal | FORMULATION AND EVALUATION OF ANTI-ACNE HERBAL CLEANSER |
| 30 | Khushbu Singh Sayzil Jasrotia | Mrs.Shradha sangale | Herbal Soft lozenges: A promising Approach For managing Diabetes |
| 31 | Pawar Shruti Jagdish | Mr. Abhijit deore | A Survey on Current trend in drug development of anticancer drugs |
| 32 | Mrunal Karpe Gayatri somwanshi Divya Sansare Dhanashre Pawar | Dr. Rani kankate mam | 'ANTIDIABETIC CHIPS'' |
| 33 | Payal Vishram Patil Tanishk Devidas Khairnar Anjali Dattatray Kshirsagar Saurabh Arun Gangurde | Dr. Rakesh U. Shelke | "Revolutionizing Type 2 Diabetes Care: Scientific Journey of fiber rich cookies made from Green unripe jackfruit & Sorghum Flour " |


Mrs. Suvarna Y. Bhalerao
UG Project Coordinator




Dr. Sanjay J. Kshirsagar
Principal
PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3.



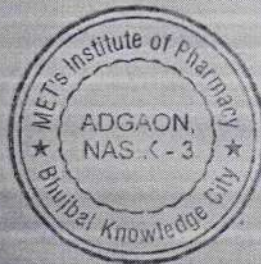
CERTIFICATE

This is to certify that the review work presented in this dissertation entitled, "A Comparative cross sectional descriptive market survey of various brands of pantoprazole" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2023-2024 by Miss. Kothawade Madhuri Ashok under the guidance and supervision of Dr. Deepak Bhambere.

This dissertation is now ready for examination.

Dr. Deepak Bhambere

Guide



Dr. S. J. Kshirsagar

Principal

Bhujbal Knowledge City
MET's Institute of Pharmacy,
Adgaon, Nashik- 422 003

evaluated



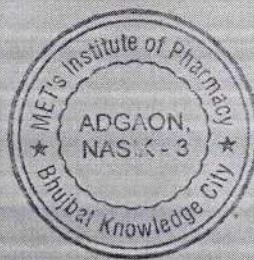
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This dissertation is now ready for examination.

Dr. Deepak Bhambere

Guide



Dr. S. J. Kshirsagar

Principal

Bhujbal Knowledge City

MET's Institute of Pharmacy,

Adgaon, Nashik- 422 003

evaluated

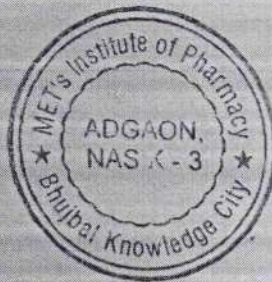


CERTIFICATE

This is to certify that the review work presented in this dissertation entitled, **“A Comparative cross sectional descriptive market survey of various brands of pantoprazole”** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the **MET’s Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2023-2024 by **Miss. Malle Rakhi Ashok** under the guidance and supervision of **Dr. Deepak Bhambere**.

This disseratation is now ready for examination.

Dr. Deepak Bhambere
Guide



Dr. S. J. Kshirsagar
Principal

Bhujbal Knowledge City
MET’s Institute of Pharmacy,
Adgaon, Nashik- 422 003

evaluated

**Bhujbal Knowledge City,
MET's Institute of Pharmacy, Nashik
Academic year 2023-2024**

Details of Training (Division A)

| Roll No. | Name of the Student | Name of Company | Start date | End date |
|----------|--------------------------------|--|------------|----------|
| 1 | Agrawal Vedant Sachin | | | |
| 2 | Ambrose Aliya Angel | Shreenath Chemicals Mfg. & export of bulk drug | 04/07/23 | 19/07/23 |
| 3 | Anumone Diya Rachel | Maneesh Exports (EOU) | 08/07/23 | 22/07/23 |
| 4 | Bajaj Samiksha Sanjay | Koral Pharma | 02/06/23 | 02/07/23 |
| 5 | Bankar Mayuri Umesh | REVE Pharma | 11/12/23 | 30/12/23 |
| 6 | Bansode Mohini Ravindra | Shriniwasa Ayurvedic Pvt Ltd. | 01/06/24 | 01/07/24 |
| 7 | Barela Manita Ganesh | Koral Pharma | 12/12/23 | 12/01/23 |
| 8 | Baviskar Tanaya Arvind | Vatsal Ayurvedic Products, Ozar, Nashik | 02/06/24 | 03/07/24 |
| 9 | Bhadke Sakshi Suresh | | | |
| 10 | Bharti Gaurav Bharat | Vital Health care Pvt Ltd | 10/06/24 | 19/06/24 |
| 11 | Bhavsar Tisha Sushil | Vatsal Ayurvedic Products, Ozar, Nashik | 02/06/24 | 03/07/24 |
| 12 | Bohari Abizer Hussaini | Vital Health care Pvt Ltd | 10/06/24 | 19/06/24 |
| 13 | Borase Priyanka Abhaykumar | Vatsal Ayurvedic Products, Ozar, Nashik | 02/06/24 | 03/07/24 |
| 14 | Chaurasia Priya Jitendraprasad | Vatsal ayurvedic Products | 02/06/24 | 03/07/24 |
| 15 | Chaure Ajay Ramchandra | | | |
| 16 | Chole Rameshwar Khushal | Koral Pharma | 05/07/23 | 20/07/23 |
| 17 | Dahale Tanishq Santosh | Bini Laboratories Pvt.Ltd | 05/07/23 | 20/07/23 |
| 18 | Daware Vaishnavi Kailas | Yugandhar Pharma | 01/07/23 | 15/07/23 |
| 19 | Dive Vaishanavi Uttam | Yugandhar Pharma | 01/07/23 | 15/07/23 |

| | | | | |
|----|--------------------------------------|-------------------------------|----------|------------|
| 20 | Dubey Riddhi Siddharthasanjay | REVE Pharma | 11/12/23 | 30/12/23 |
| 21 | Gaikwad Kanchan Dilip | Shrinivasa Ayurvedic Pvt Ltd. | 01/06/23 | 01/07/2023 |
| 22 | Gangurde Mohit Lalit | | | |
| 23 | Gawai Abhay Sunil | | | |
| 24 | Girase Tejendrasing Ravindrasing | Vital Health care Pvt Ltd | 10/06/23 | 19/06/23 |
| 25 | Gite Tanay Pravin | | | |
| 26 | Hire Rushikesh Shantaram | Koral Pharma | 05/07/23 | 20/07/23 |
| 27 | Jadhav Atmika Manik | Chaitanya Pharmaceuticals | 04/07/23 | 19/07/23 |
| 28 | Jadhav Pooja Popat | Chaitanya Pharmaceuticals | 04/07/23 | 19/07/23 |
| 29 | Jadhav Rahul Baban | vital Health Care Pvt Ltd. | 10/06/24 | 10/07/24 |
| 30 | Jha Neha Shankar | REVE Pharma | 11/12/23 | 30/12/23 |
| 31 | Kawade Shreya Amit | Koral Pharma | 02/06/23 | 02/07/23 |
| 32 | Kazi Javeriya Iftexharoddin | Biolaxi enzyme Pvt Ltd. | 07/07/23 | 21/07/23 |
| 33 | Khairnar Ujjwal Sunil | Koral Pharma | 05/07/23 | 20/07/23 |
| 34 | Khose Prerana Santosh | Meyer Vitabiotics | 01/07/23 | 29/07/23 |
| 35 | Kotkar Saurabh Parshuram | | | |
| 36 | Kurhe Atharva Sushant (Year Down) | | | |
| 37 | Malode Sanchit Santosh | Koral Pharma | 04/07/23 | 19/07/23 |
| 38 | Malvade Komal Gurudatt | Ashish Life Science Pvt Ltd | 04/07/23 | 23/07/23 |
| 39 | More Sanket Vinod | BDA healthcare Pvt Ltd | 08/07/23 | 22/07/23 |
| 40 | Nair Abhishek Ramachandran | Chaitanya Pharmaceuticals | 04/07/23 | 19/07/23 |
| 41 | Pagare Padmabhushan Dnyanesh | Koral Pharma | 05/07/23 | 20/07/23 |

| | | | | |
|----|----------------------------|--|----------|----------|
| 42 | Pakhale Vaishnavi Kailas | | | |
| 43 | Panjabi Amruta Jagmohan | Koral Pharma | 02/06/23 | 02/07/23 |
| 44 | Pathan Arshiya Raju | Biolaxi enzymes Pvt Ltd. | 07/07/23 | 21/07/23 |
| 45 | Patil Divya Umesh | Biolaxi enzymes Pvt Ltd. | 07/07/23 | 21/07/23 |
| 46 | Patil Kaustubh Shivaji | Vital Health Care Pvt Ltd. | 06/07/23 | 23/07/23 |
| 47 | Patil Sakshi Yogesh | Yugandhar pharma | 01/07/23 | 15/07/23 |
| 48 | Patil Tejas Bharat | Vital Health Care Pvt Ltd. | 10/06/24 | 10/07/24 |
| 49 | Pothare Sakshi Sanjay | Shriniwasa Ayurvedic Pvt Ltd. | 01/06/24 | 01/07/24 |
| 50 | Sadhwani Jatin Ashok | Leben Laboratories pvt. ltd . | 07/07/23 | 20/07/23 |
| 51 | Shewale Akanksha Shantaram | Yugandhar pharma | 01/07/23 | 15/07/23 |
| 52 | Sonar Atharva Vijay | Glenmark Pharmaceuticals | 31/9/23 | 31/10/23 |
| 53 | Sonawane Aakanksha Devidas | Vatsal Ayurvedic Products, Ozar, Nashik | 02/06/24 | 03/07/24 |
| 54 | Talwar Esha Manish | | | |
| 55 | Thete Tushar Ashok | Bini Laboratories Pvt.Ltd | 05/07/23 | 20/07/23 |
| 56 | Vidhate Nikita Kishor | Biolaxis Enzyme Pvt Ltd. | 07/07/23 | 21/07/23 |
| 57 | Wadghule Tejas Sunil | Koral Pharma | 05/07/23 | 20/07/23 |
| 58 | Wagh Akanksha Raghunath | Yugandhar pharma | 01/07/23 | 15/07/23 |
| 59 | Wagh Akshata Sanjay | SciTech Specialities Pvt. Ltd | 03/07/23 | 15/07/23 |
| 60 | Yerawar Aishwarya Mano | Koral Pharma | 02/06/23 | 02/07/23 |



Dr. Nilima A. Thombre
Training In-Charge




Dr. Sanjay J. Kshirsagar
Principal

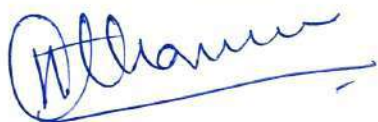
PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3

**Bhujbal Knowledge City,
MET's Institute of Pharmacy, Nashik
Academic year 2023-2024
Details of Training (Division B)**

| Roll No. | Name of the Student | Name of Company | Start date | End date |
|----------|----------------------------|-------------------------------------|------------|-----------|
| 1 | Aher Sanskruti Kailas | Koral Pharma Pvt. Ltd. | 08/07/23 | 22/07/23 |
| 2 | Ahire Kamlesh Mahendra | Koral Pharma Pvt. Ltd. | 05/07/23 | 20/07/23 |
| 4 | Apsunde Aarti Sandeep | | | |
| 5 | Bagul Mrunal Tushar | Koral Pharma Pvt. Ltd. | 10 /07/23 | 25/07/23 |
| 7 | Borade Sakshi Daulat | Chaitanya pharmaceuticals Ltd | 04/07/23 | 19/07/24 |
| 9 | Chavan Janhavi Rajesh | | | |
| 10 | Chide Apeksha Arun | Koral Pharma Pvt. Ltd. | 10 /07/23 | 25/07/23 |
| 11 | Chikhale Sakshi Nitin | | | |
| 12 | Dandawate Samruddhi Nilesh | Mogra Laboratories | 03 /07/23 | 17 /07/23 |
| 14 | Dharbhale Shreya Vilas | Rap Analytical Research, Nashik | 10/07/23 | 09/08/23 |
| 15 | Gaidhani Abhijeet Sharad | Rap Analytical Research | 10/07/23 | 09/08/23 |
| 16 | Gangurde Hitesh Ravindra | Kapyabnag Pharma Pvt Ltd. | 01/07/23 | 15/08/23 |
| 17 | Gangurde Roshan Nandu | | | |
| 18 | Ghadwaje Tejashree Sunil | RAP Analytical Research | 10/07/23 | 09/08/23 |
| 19 | Ghodke Ankush Balasaheb | Koral Pharma | 05/07/23 | 20/07/23 |
| 20 | Ghongane Neha Sunil | RAP Analytical Research, Nashik. | 10/07/23 | 09/08/23 |
| 21 | Gunjal Dnyanesh Avinash | RAP Analytical Research, Nashik. | 10/07/23 | 09/08/23 |
| 22 | Jadhav Asmita Dattu | Biolaxi Enzymes Pvt Ltd | 07/07/23 | 21/07/23 |
| 23 | Kadam Komal Sandeep | Indoco Remedies Limited | 18/12/23 | 29/12/23 |
| 24 | Kanade Vaishnavi Bhagwat | Chaitanya pharmaceuticals Ltd | 04/07/23 | 19/07/23 |
| 25 | Kapile Shruti Sunil | Glenmark Pharmaceuticals Ltd | 02/10/23 | 28/10/23 |
| 26 | Karanjkar Unnati Somnath | Chaitanya pharmaceuticals Ltd | 04/07/23 | 19/07/24 |

| | | | | |
|----|---------------------------|---------------------------------|----------|----------|
| 27 | Kawale Rohit Shankar | Koral Pharma Pvt. Ltd. | 15/07/23 | 30/07/23 |
| 28 | Khandekar Tanay Amit | Chaitanya pharmaceuticals Ltd | 04/07/23 | 19/07/24 |
| 29 | Kokate Arpita Anil | Holden Medical Laboratories | 10/07/23 | 20/07/23 |
| 31 | Mane Shital Bhagwan | RAP Analytical Reserch Nashik | 10/07/23 | 09/08/23 |
| 32 | Mitkari Namrata Arun | RAP Analytical Research Nashik | 10/07/23 | 09/08/23 |
| 33 | More Divya Vijay | Koral Pharma Pvt. Ltd. | 05/07/23 | 20/07/23 |
| 34 | Mukhedkar Shruti Bhaskar | Koral Pharma Pvt. Ltd. | 05/07/23 | 20/07/23 |
| 35 | Musale Gaurav Govind | | | |
| 36 | Nagpure Sarthak Pramod | Koral Pharma Pvt. Ltd. | 05/07/23 | 20/07/23 |
| 38 | Pathak Mayuresh Kishor | Palicside Cotton Products | 20/07/23 | 30/07/23 |
| 39 | Patil Amey Sudhir | RAP analytical Reasearch | 10/07/23 | 09/08/23 |
| 40 | Patil Jayesh Ramkrishna | RAP analytical Reasearch | 10/07/23 | 09/08/23 |
| 41 | Patil Kalyani Jagannath | Koral Pharma Pvt. Ltd. | 10/07/23 | 25/07/23 |
| 42 | Patil Sanika Sunil | REVE Pharma | 03/07/23 | 20/07/23 |
| 43 | Patil Utkarsha Ulkesh | | | |
| 44 | Patil Yashraj Bharat | vital Health Care Pvt Ltd. | 10/06/24 | 10/07/24 |
| 45 | Pawar Dhiraj Bakerao | BDA Healthcare Pvt. Ltd. | 08/07/23 | 22/07/23 |
| 46 | Pawar Prerana Revenath | Koral Pharma Pvt. Ltd. | 15/07/23 | 30/07/23 |
| 48 | Rajput Manas Subhash | Holden Medical Laboratories | 10/07/23 | 25/07/23 |
| 49 | Sali Sakshi Mukesh | Holden Medical Laboratories | 10/07/23 | 20/07/23 |
| 52 | Shewale Gauri Satish | RAP analytical Reasearch | 10/07/23 | 09/08/23 |
| 53 | Shinde Shraddha Bhaghawan | vital Health Care Pvt Ltd. | 10/06/24 | 10/06/24 |
| 54 | Shirsath Ritesh Kishor | Holden Medical Laboratories | 05/07/23 | 20/07/23 |
| 55 | Shirsath Tejas Kailas | Holden Medical Laboratories | 10/07/23 | 20/07/23 |
| 56 | Sonawane Dipali Tukaram | | | |
| 57 | Tambe Pradnya Rajendra | Biolaxy Enzymes Pvt Ltd. Nashik | 07/07/23 | 21/07/23 |

| | | | | |
|----|----------------------------|---|----------|----------|
| 58 | Tupe Mansi Jitendra | RAP analytics research and training centre | 10/07/23 | 09/09/23 |
| 60 | Ushir Sayli Narayan | | | |
| 61 | Vadhane Abhimayu Kashinath | | | |
| 62 | Waghmare Arya Namdeo | Kapynag Pharma Pvt. Ltd | 12/07/23 | 28/07/23 |
| 63 | Yadav Nisha Balkishan | Rap Analytical Research and training centre | 10/07/23 | 09/08/23 |
| 64 | Ghogare Komal Dipak | Koral Pharma Pvt. Ltd. | 05/07/23 | 20/07/23 |



Dr. Nilima A. Thombre
Training In-Charge



Dr. Sanjay J. Kshirsagar
Principal



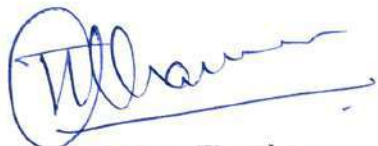
PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3.

**Bhujbal Knowledge City,
MET's Institute of Pharmacy, Nashik
Academic year 2023-2024**

Details of Training (M. Pharmacy)

| Roll No. | Name of the Student | Specialization | Name of Company | Start date | End date |
|----------|------------------------------|-----------------------------|---|------------|------------|
| 1 | Pallavi Ravindra Pagar | Regulatory Affairs | Glenmark Pharmaceutical Ltd, Nashik | 25/01/2024 | 13/02/2024 |
| 2 | Krishnali Narendra Pawar | | Glenmark Pharmaceutical Ltd, Nashik | 25/01/2024 | 13/02/2024 |
| 3 | Barwal Pawan Gokul | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 4 | Khedkar Bhagwant Chandrakant | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 5 | Rajput Ashutosh Govindsing | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 6 | Jadhav Sarthak Pandurang | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 7 | Shirsath Ganesh Bhagwan | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 8 | Badhe Shivshankar Ramratan | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 9 | Pawara Pravin Premsing | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 10 | Bachhav Harshal Arun | Quality Assurance Technique | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 16/10/2023 | 30/10/2023 |
| 11 | Kale Ankita Sunil | Regulatory Affairs | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 06/12/2023 | 30/12/2023 |
| 12 | Jinturkar Fardeen Khalik | Regulatory Affairs | Vatsal Ayurvedic Products Pvt. Ltd, Ozhar | 06/12/2023 | 30/12/2023 |
| 13 | Mali Rajan Nitin | Regulatory Affairs | Maxheal Pharmaceuticals (India)Ltd. | 10/12/2023 | 25/01/2024 |

| | | | | | |
|----|------------------------|--------------------|---|------------|------------|
| 14 | Shreya Sunil Shinde | Regulatory Affairs | Zenvision Pharma LLP, Mahape | 20/11/2023 | 20/01/2024 |
| 15 | Shruti Tulsiram Madavi | Regulatory Affairs | Dr.Paleps Medical Research Foundation Pvt.Ltd | 08/01/2024 | 26/04/2024 |
| 16 | Mr.Nisarg Dilip Ahire | Regulatory Affairs | Hetero | 06/11/2023 | 24/05/2024 |
| 17 | Sakshi Rajendra Somani | Pharmacology | Nucleus Healthcare and Research Pvt.Ltd | 01/12/2023 | 30/05/2024 |



Dr. Nilima A. Thombre
Training In-Charge



Dr. Sanjay J. Kshirsagar
Principal



PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3.

MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity- Field Work Training Program-2023-24

Day and Date: 17th & 23rd Dec 2023 (Viva and Report submission) Courtesy-Retail Medical Stores Proprietors

| Participants | Staff | Students | Class and Course |
|--------------|-------|----------|-------------------|
| | - | 100 | B. Pharmacy (F.Y) |

Details of the Program:

Our institute ran a field work training programme in which B. Pharmacy students were required to complete their 30-hour clinic/retail/wholesale medical store training on a two-hour basis only. They were also given a 30-hour internship letter from the respective retail medical store proprietor. Over the course of the training period, students gained professional and management skills as well as an understanding of the fundamentals of the market. Students gain experience handling prescription drugs, and on 17th & 23rd Dec 2023, a viva was held for the purpose of submitting the final report for the field work training programme.

Program Objective Achievement

| | | | | | |
|-----|-----------------------|---|-------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | ✓ | PO7 | Pharmaceutical Ethics | ✓ |
| PO2 | Planning Abilities | ✓ | PO8 | Communication | ✓ |
| PO3 | Problem Analysis | | PO9 | The Pharmacist and society | ✓ |
| PO4 | Modern Tool Usage | ✓ | PO10 | Environment and Sustainability | |
| PO5 | Leadership Skills | ✓ | PO 11 | Lifelong Learning | ✓ |
| PO6 | Professional Identity | ✓ | | | |

Photos of the event (Viva and Report Submission):

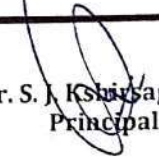


Photos of the event (Field work Training):




Mr. S. J. Khairnar
Coordinator




Dr. S. J. Kshirsagar
Principal

PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3.

Field Work Training Program 2023-24

**Bhujbal Knowledge City, Institute of Pharmacy
Class: F. Y B. Pharm (Sem I) Division: A**

| Roll No. | Name of Student | Pharmacy Name | Start date | End date |
|-----------------|---------------------------------|----------------------------------|-------------------|-----------------|
| 1 | Diksha Navnath Algat | Darade pharma | 13/11/2023 | 19/11/2023 |
| 2 | Tanushka Awaghad | Pawan Medicals | 15/11/2023 | 18/11/2023 |
| 3 | payal Vikas Aware | New Om sai Medical | 12/11/2023 | 19/11/2023 |
| 5 | Swapnil Anil Bhalariao | Tejas Medical | 11/11/23 | 18/11/23 |
| 6 | Mrudula Prashant Bhondve | Royal Medical Shop | 11/12/23 | 18/11/23 |
| 7 | Divya Bhikchand Chaudhari | Sai Balaji Medical | 15/11/2023 | 18/11/2023 |
| 8 | Rinki Jitendra Prasad Chaurasia | kalpana medical store | 11/11/23 | 19/11/2023 |
| 10 | Dhumal Nayan Vijay | Shivansh Medical | 13/11/2023 | 18/11/2023 |
| 11 | Anshu Vinod Gaikwad | Patil Pharma Medicals | 11/11/2023 | 19/11/2023 |
| 12 | Prathana Pramod Gaikwad | Mauli Medical and General Stores | 13/11/23 | 18/11/23 |
| 17 | Shlok Sachin Gujar | Shlok Medicals | 10/11/2023 | 19/11/2023 |
| 18 | Gumnar Rameshwari Ratan | Med Plus Medical | 11/11/2023 | 18/11/2023 |
| 19 | Hagote Pooja Navnath | Laxmi Medical | 13/11/2023 | 19/11/2023 |
| 21 | Jadhav Rahul Krishna | Narmadeshwar Medical | | |
| 22 | Jadhav Sayali Kailas | Shivansh Medical | 13/11/2023 | 18/11/2023 |
| 25 | komal Raghunath Khairnar | Satyam medical | 11/11/23 | 18/11/23 |
| 27 | Shubham Birendra Kushwaha | Vaidehi Medical | 10/11/23 | 19/11/2023 |
| 28 | Dnyaneshwari U. Mahajan | Jogeshwari medical | 13/ 11 /2023 | 19/11/2023 |
| 29 | Om Manish Mahajan | Ekvira medical | 14/11/2023 | 19/11/2023 |
| 31 | Om Sachin mandlik | Vvp Medical | 09/11/2023 | 19/11/2023 |
| 33 | Mudhale yuvraj pradeep | Shlok medicals | 10/11/2023 | 19/11/2023 |
| 34 | Mutkule Prathmesh Dilip | Murali Medical | 10/11/2023 | 19/11/2023 |
| 35 | saurabh youraj nawale | Siddhivinayak medical | 11/11/2023 | 18/11/2023 |
| 36 | Tejaswini Dinesh Nikam | Abhishek medical | 11/11/2023 | 19/11/2023 |
| 38 | Vidhi Vijay Pagare | Saikrupa Medical | 13/11/2023 | 18/11/2023 |
| 39 | Somya Nanda Pandey | Kalpana medical store | 11/11/23 | 19/11/23 |
| 40 | Abhishek sunil pankar | Familycare medical | 11/11/2023 | 19/11/2023 |
| 41 | Vishal Hanuman Pathrikar | Tejas Medical | 10/11/23 | 19/11/23 |
| 42 | Anuj Vivek Patil | Patil Pharma Medical | 11/11/23 | 19/11/23 |
| 43 | Prathamesh Shailesh Patil | Mahalakshmi Pharma | 10/11/2023 | 19/11/2023 |
| 44 | Rutika Arun Patil | Gayatri Pharma | 16/11/2023 | 18/11/2023 |
| 45 | Gargi chandrakant purkar | suyog medicals | 14/11/2023 | 19/11/2023 |
| 48 | Mrunal Navnath Sanap | Divyanand medical | 14/11/2023 | 18/11/2023 |
| 49 | Sakshi Shivaji Satbhai | Shree Seva Medical | 11/11/23 | 19/11/2023 |
| 52 | Roshan sanjay shirsath | advyat Medicals | 15/11/2023 | 20/11/23 |
| 53 | Aditi Vikas Sonawane | Swami medicals | 14/11/2023 | 19/11/2023 |
| 55 | Harsh Rahul Supare | shlok medicals | 10/11/2023 | 19/11/2023 |
| 56 | Vedant Kishor Sutar | Siddhai Medicals | 15/11/2023 | 18/11/2023 |

Name of the Co-Ordinator: Mr. Shubham J. Khairnar**Class: F. Y B. Pharm (Sem I) Division: B**

| Roll No. | Name of Student | Pharmacy Name | Start date | End date |
|-----------------|----------------------------|--|-------------------|-----------------|
| 2 | Jidnyasa Bagul | Uttam Medical and General Stores | 16/11/2023 | 18/11/2023 |
| 3 | Tanishka Bansi | Shardul Pharma pavan Nagar, nashik | 14/11/2023 | 19/11/2023 |
| 4 | Tanishka Baviskar | Swami Medical and general Stores | 14/11/2023 | 19/11/2023 |
| 5 | Shravani Bhandari | Surana medical and general stores | 11/11/2023 | 17/11/2023 |
| 6 | Bhagyesh Paresb Bhavsar | Aarogyam Medical | 12/11/2023 | 17/11/2023 |
| 7 | Srushti Mangesh Bhole | Royal Medical Store | 13/11/2023 | 18/11/2023 |
| 8 | Samarth Ashok Dahibhate | Rajesh Medical Store | 11/11/2023 | 17/11/2023 |
| 09 | soham sopanrao dalvi | pathekar medical store | 12/11/23 | 15/11/23 |
| 10 | Yash Yogesh Date | Sai samarth medical | 13/11/2023 | 19/11/23 |
| 11 | pratiksha vishwas dawange | Gayatri pharma | 16 /11/2023 | 18/11/23 |
| 12 | Dhruv Makarand Deshpande | Yash Medical Store | 13/11/2023 | 19/11/2023 |
| 13 | Pooja Santosh Dhande | Samarth Medical Store | 19/11/2023 | 25/11/2023 |
| 14 | Vedant Jitendra Dhomse | Shree Dattaprasad Medical | 14/11/2023 | 19/11/2023 |
| 15 | Vaidehi Dattatrey Dive | Vaishnavi Medical | 14/11/23 | 18/11/23 |
| 16 | Sakshi Dilip Dokhale | ARUN medical store | 13/11/2022 | 17/11/2023 |
| 17 | Advika Suresh gaikwad | Uttam Medical | 12/11/23 | 18/11/23 |
| 18 | Parth Gorak Gangurde | Ganesh Medical | 12/11/23 | 18/11/23 |
| 21 | Varun Raviraj Ghodekar | Rajesh Medical Stores | 14/11/2023 | 18/11/2023 |
| 22 | sakshi Rajendra Ghule | Patil Medical Stores | 13/11/2023 | 18/11/2023 |
| 23 | Shraddha Kiran Gulve | Santseva medical stores | 12/11/2023 | 17/11/2023 |
| 24 | Sakshi Raghunath Gumnar | Santseva medical stores | 11/11/2023 | 18/11/2023 |
| 25 | Anurag Gautam Jamnik | Med Plus Medical store | 13/11/23 | 19/11/23 |
| 26 | Atharva Deepak Jadhav | Dhandai medical store, Shikharewadi | 12/11/2023 | 17/11/2023 |
| 27 | Aditya Ganesh Kadam | Shree Narendra medical | 11/11/2023 | 16/11/2023 |
| 29 | kalyani kisan katkade | divayanand Medical store, Sinner | 14/11/2023 | 18/11/2023 |
| 30 | Pournima Anil Khairnar | shivsagar medical store | 15/11/23 | 18/11/23 |
| 31 | Tanvi Sopan Khairnar | Vaishnavi Medical store | 16/11/23 | 19/11/23 |
| 33 | Harshal Vivek Mahajan | Ekvira Medical and General store | 13/11/23 | 18/11/23 |
| 34 | | | | |
| 35 | Masule Gauri Pravin | Pravesh medical and general store, Ashoka marg, nashik | 14/11/23 | 18/11/23 |
| 38 | Masule Gauri Pravin | Med Plus Medical store | 11/11/2023 | 18/11/2023 |
| 40 | ayushi ravindra patil | guru ganesh medical, Manmad | 12/11/2023 | 22/11/2023 |
| 42 | Gauri Dilip Patil | Metro medical general store, mumbai | 13/11/23 | 18/11/23 |
| 43 | vaishnavi sandip patil | shree balaji medical | 14/11/23 | 18/11/23 |
| 44 | Krupa Paresb Pawar | Tara Medical and Wholesale Agency, ozhar | 13/11/23 | 18/11/23 |
| 45 | Shreya Prakash Pingal | Panchamrut MedicalStore | 14/11/2023 | 17/11/2023 |
| 46 | Purkar Sakshi Nitin | Saraswati medical Store | 10/11/2023 | 19/11/2023 |
| 48 | Simran Manoj Raut | New Dayanand Medical, surgana | 14/11/2023 | 18/11/2023 |
| 49 | Trupti Raju Raut | Rajan's medical | 11/11/2023 | 18/11/2023 |
| 50 | Sanjivaneer Vaibhav Shirke | Dhandai medical | 13/11/2023 | 18/11/2023 |
| 51 | Neeraj jagannath sonar | A to Z Medical | 17/11/2023 | 21/11/2023 |
| 52 | Atharva Balasaheb tupe | Vijay Medical, general store pimpalgaon | 14/11/2023 | 18/11/2023 |
| 53 | Prathmesh Jagdish wagh | Gajanan medical, Amrutdham, Nashik | 10/11/2023 | 19/11/2023 |
| 55 | Ritu Yogesh wagh | Mauli Medical store, Nashik | 13/11/2023 | 18/11/2023 |
| 56 | Rutuja kisan waje | Prathmesh medical health and wellness | 12/11/2023 | 19/11/2023 |
| 57 | Shrawani Rajendra waljali | Om Medical general store Sinnar | 15/11/2023 | 18/11/2023 |

MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity- Field Work Training Program-2023-24

Day and Date: Wednesday, 09th and 10th December 2023 (Viva and Report submission)

Courtesy-Wholesale Medical Stores Proprietors

| Participants | Staff | Students | Class and Course |
|--------------|-------|----------|---------------------------|
| | - | 130 | B. Pharmacy (Second Year) |

Details of the Program:

Our institute ran a field work training programme in which B. Pharmacy students were required to complete their 30-hour clinic/retail/wholesale medical store training on a two-hour basis only. They were also given a 30-hour internship letter from the respective Wholesale medical store proprietor. Over the course of the training period, students gained professional and management skills as well as an understanding of the fundamentals of the market. Students gain experience handling prescription drugs, and on 9th & 10th Dec 2023, a viva was held for the purpose of submitting the final report for the field work training programme.

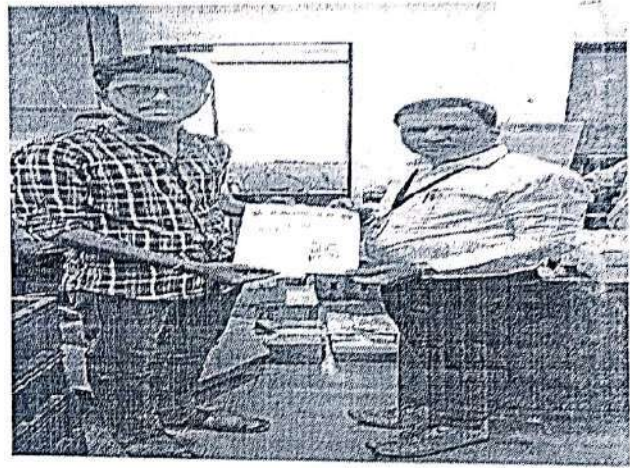
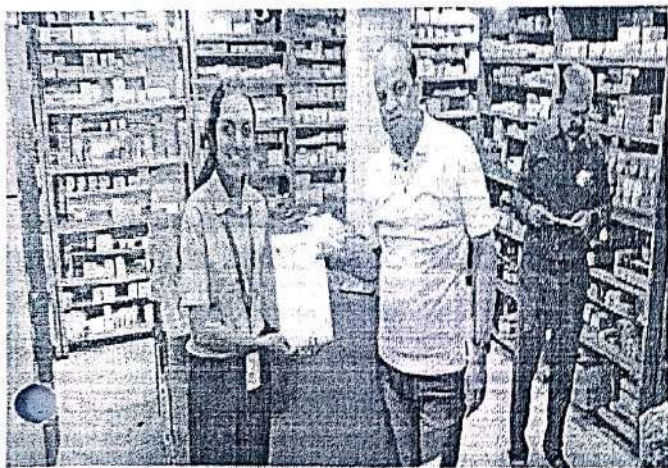
Program Objective Achievement

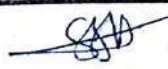
| | | | | | |
|-----|-----------------------|---|-------|--------------------------------|---|
| PO1 | Pharmacy Knowledge | ✓ | PO7 | Pharmaceutical Ethics | ✓ |
| PO2 | Planning Abilities | ✓ | PO8 | Communication | ✓ |
| PO3 | Problem Analysis | | PO9 | The Pharmacist and society | ✓ |
| PO4 | Modern Tool Usage | ✓ | PO10 | Environment and Sustainability | |
| PO5 | Leadership Skills | ✓ | PO 11 | Lifelong Learning | ✓ |
| PO6 | Professional Identity | ✓ | | | |

Photos of the event (Viva and Report Submission):

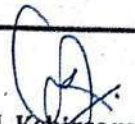


Photos of the training (Wholesale Pharmacy):




Mr. S. J. Khairnar
Coordinator




Dr. S. J. Kshirsagar
Principal

PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-3.

Field Work Training Program 2023-24

Bhujbal Knowledge City, Institute of Pharmacy Class: S. Y B. Pharm (Sem III) Division: A

| Roll No. | Name of Student | Pharmacy Name | Start date | End date |
|----------|--------------------|---|------------|------------|
| 1 | Abhale Vaibhavi | Shreejay Wholesale and Retail medical, Nashik | 19/11/2023 | 25/11/2023 |
| 2 | Ahire Mayur | Shri Pharma Wholesale & Retail store, Nashik | 22/11/2023 | 27/11/2023 |
| 3 | Ahirrao Vivek | Sakshi Pharma Pharmaceutical Distributors, Nashik | 25/11/2023 | 02/12/2023 |
| 4 | Ansari falak | Om Pharma Needs Pharmaceutical Distributors, Nashik | 15/11/2023 | 30/11/2023 |
| 5 | Bagul Raj | Shri Pharma wholesale and Retail, Nashik | 16/11/2023 | 21/11/2023 |
| 6 | Bhadane Jayshree | Unity sale distributors, Nashik | 19/11/2023 | 29/11/2023 |
| 7 | Bharat Nikhil | Sai scheme House, Nashik | 19/11/2023 | 25/11/2023 |
| 8 | Bodake Sayali | P.S. Pharma, Nashik | 17/11/2023 | 23/11/2023 |
| 9 | Borse Akshata | Swapnil Medical, Nashik | 13/11/2023 | 19/11/2023 |
| 10 | Burhade Harsh | Mahadev Agency, Nashik | 21/11/2023 | 27/11/2023 |
| 11 | Chaudhari Charvi | Vishal Pharma, Nashik | 19/11/2023 | 25/11/2023 |
| 12 | Challare Payal | Shri Chintamani Medical Shop | 10/11/2023 | 19/11/2023 |
| 13 | Deore Gayatri | Hirkani Pharma (Wholesale Medical Agencies) | 19/11/2023 | 24/11/2023 |
| 14 | Deore Vibhuti | P. S. Pharma, Nashik | 17/11/2023 | 23/11/2023 |
| 15 | Deshmukh Bhushan | Akshada Medical & General Store, Nashik | 19/11/2023 | 25/11/2023 |
| 16 | Gadekar Pratiksha | Morya Medical & General store, Nashik | 10/11/2023 | 19/11/2023 |
| 17 | Gaikwad Pallavi | Shaurya Pharma, Nashik | 25/11/2023 | 03/12/2023 |
| 18 | Gangurde Samiksha | Dev Medical, Nashik | 13/11/2023 | 19/11/2023 |
| 19 | Gavit Dipali | Kirti agencies pharmaceutical distributors | 22/11/2023 | 27/11/2023 |
| 20 | Gonte Adarsh | Mahadev Agency, Nashik | 20/11/2023 | 27/11/2023 |
| 21 | Gojar Neha | , Kirti agencies pharmaceutical distributors, Nashik | 19/11/2023 | 25/11/2023 |
| 22 | Jadhav Sakshi | Unity Sales, Nashik | 19/11/2023 | 29/11/2023 |
| 23 | Jejurkar Anisha | Prik Pharma, Nashik | 09/11/2023 | 19/11/2023 |
| 24 | Kalamkar Devyani | New Shrish medical and General Store | 11/11/2023 | 19/11/2023 |
| 25 | Kasar Pratik | Shaurya Pharma Nashik | 20/11/2023 | 28/11/2023 |
| 26 | Kathe Bhavana | Shri Sakshi Medical store | 20/11/2023 | 26/11/2023 |
| 27 | Khaire Kunal | Ekdant Pharma, Nashik | 11/11/2023 | 17/11/2023 |
| 28 | Khaimar Hitesh | Krushan Medical and Agency, Nashik | 09/11/2023 | 19/11/2023 |
| 29 | Khandagale Nakul | Suyog Medical and General Stores | 24/11/2023 | 01/12/2023 |
| 30 | Kshirsagar Tushar | Ekdanta Pharma, Nashik | 11/11/2023 | 17/11/2023 |
| 31 | Lite Sanjana | City Medical & Agencies, Nashik | 19/11/2023 | 25/11/2023 |
| 32 | Mahatme Priya | Shree Swami Medical and General Stores | 10/11/2023 | 19/11/2023 |
| 33 | More Nikhil | Shri Pharma Wholesale & Retail | 19/11/2023 | 21/11/2023 |
| 34 | Musale Devyani | Rudra Medical Agency, Nashik | 15/11/2023 | 20/11/2023 |
| 35 | Nagpurkar Om | Sakshi Pharma Pharmaceutical Distributors, Nashik | 19/11/2023 | 25/11/2023 |
| 36 | Nikam Sakshi | Kirti Agencies, Nashik | 11/11/2023 | 19/11/2023 |
| 37 | Panjjalal Rupali | Dr. Vijay Pharma Pvt. Ltd | 21/11/2023 | 27/11/2023 |
| 38 | Patil Astha | Swarajya Pharma, Nashik | 10/11/2023 | 22/11/2023 |
| 39 | Patil Prathmesh | Shri pharma Wholesale and Retail, Nashik | 20/11/2023 | 25/11/2023 |
| 40 | Patil Yamini | Kirti Agencies, Nashik | 10/11/2023 | 19/11/2023 |
| 41 | Pawar Bhushan | Shri Pharma Wholesale and Retail, Nashik | 20/11/2023 | 25/11/2023 |
| 42 | Pawar Yogesh | Akshada Medical and General Store | 19/11/2023 | 25/11/2023 |
| 43 | Rajput Sakshi | Samartha Enterprises, Nashik | 11/11/2023 | 25/11/2023 |
| 44 | Ramkor Yash | Shri Pharma wholesale, Nashik | 22/11/2023 | 27/11/2023 |
| 45 | Sanap Shraddha | Mahesh hospital Equipment and general Suppliers, Nashik | 19/11/2023 | 25/11/2023 |
| 46 | Sarode Pratiksha | Shreejay Medical Wholesale and Retail, Nashik | 19/11/2023 | 25/11/2023 |
| 47 | Shinde Gauri | P.K. Medical Agencies, Nashik | 24/11/2023 | 27/11/2023 |
| 48 | Shinde Sushant | Shri Pharma Wholesale and Retail, Nashik | 16/11/2023 | 21/11/2023 |
| 49 | Shirole Sayali | Ojhar Medical and Wholesale agencies | 25/11/2023 | 01/12/2023 |
| 50 | Shirude Akshata | Swapnil Medical, Nashik | 13/11/2023 | 19/11/2023 |
| 51 | Sonawani Aryan | Trimurti Agencies, Nashik | 21/11/2023 | 27/11/2023 |
| 52 | Swami Prathmesh | Laxmi Pharmaceutical Distributors, Nashik | 18/11/2023 | 22/11/2023 |
| 53 | Thakare Shruti | Shaurya Pharma, Nashik | 09/11/2023 | 19/11/2023 |
| 54 | Tidke Puja | Namami Pharma, Nashik | 19/11/2023 | 25/11/2023 |
| 55 | Tile Kalyani | P. K. Medical Agencies, Nashik | 17/11/2023 | 23/11/2023 |
| 56 | Ugale Soham | Laxmi pharmaceutical distributors, Nashik | 13/11/2023 | 16/11/2023 |
| 57 | Wadekar Ayush | Soul Remedies, Nashik | 16/11/2023 | 25/11/2023 |
| 58 | Wadnere Arpita | Shreepad medical and general store, Nashik | 10/11/2023 | 19/11/2023 |
| 59 | Wagh Om | Trimurti Agencies, Nashik | 20/11/2023 | 27/11/2023 |
| 60 | Waghchaure Suwarta | Wholesale Medical store Name, Nashik | 19/11/2023 | 25/11/2023 |
| 61 | Wakte Sakshi | Samadhan Pharma, Nashik | 12/11/2023 | 21/11/2023 |
| 62 | Waskar Soham | Shree Gajanan Agencies, Nashik | 10/11/2023 | 18/11/2023 |
| 63 | Zade Archana | Fairdeal Agencies, Nashik | 17/11/2023 | 23/11/2023 |

Class: S. Y B. Pharm (Sem III) Division: B

| Roll No. | Name of Student | Pharmacy Name | Start date | End date |
|----------|----------------------|--|------------|------------|
| 1 | Ahire Kunal | Rahul enterprises, Nashik | 19/11/2023 | 25/11/2023 |
| 2 | Ahire Vishal | Shri Pharma Wholesale and retail, Nashik | 16/11/2023 | 20/11/2023 |
| 3 | Ahire Mayuri | Dr. Vijay Pvt. Ltd | 13/11/2023 | 18/11/2023 |
| 4 | Aringale Akanksha | Unity Sales, Nashik | 19/11/2023 | 29/11/2023 |
| 5 | Bagul Pranav | Shree Pharma Wholesale & retail | 15/11/2023 | 18/11/2023 |
| 6 | Barhate Sakshi | Shri Medical and General store | 21/11/2023 | 26/11/2023 |
| 7 | Bhandare sakshi | Shri Medical and General store | 21/11/2023 | 26/11/2023 |
| 8 | Borgude Mayusha | Deepa-Vaibhav Medical and general stores | 08/11/2023 | 22/11/2023 |
| 9 | Borse Tanmay | Sakshi Pharma Pharmaceutical distributors | 14/11/2023 | 22/11/2023 |
| 10 | Durjad Omkar | Dr. Vijay pharma Pvt. Ltd | 15/11/2023 | 18/11/2023 |
| 11 | Dhokale Gayatri | Shri Medical and General store | 22/11/2023 | 27/11/2023 |
| 12 | Dusad Savari | Namami Pharma | 19/11/2023 | 25/11/2023 |
| 13 | Gaidhani Aarya | Shree Pharma Wholesale & retail | 15/11/2023 | 18/11/2023 |
| 14 | Gaidhani Shravani | Dr. Vijay Pharma Pvt. Ltd. | 13/11/2023 | 23/11/2023 |
| 15 | Gangurde Ishwari | Prasu Pharma Wholesale Store | 25/11/2023 | 02/12/2023 |
| 16 | Gawali Aditya | Rahul Enterprises | 19/11/2023 | 25/11/2023 |
| 17 | Inor Aniket | MV Chemist Medical stores | 19/11/2023 | 25/11/2023 |
| 18 | Jadhav Srushiti | Ojhar Medical and wholesale agencies | 25/11/2023 | 01/12/2023 |
| 19 | Jha Ankita | Prasu Pharma Wholesale Store | 25/11/2023 | 02/12/2023 |
| 20 | Kaduskar Aadhika | Renuka Pharma | 22/11/2023 | 26/11/2023 |
| 21 | Kapse Abhay | Vakratund Medical Agencies | 15/11/2023 | 18/11/2023 |
| 22 | Kate Narayan | Shaurya Pharma Nashik | 20/11/2023 | 28/11/2023 |
| 23 | Kate Chaitali | Kiriti Medical Agencies | 14/11/2023 | 18/11/2023 |
| 24 | Khairnar Bhavesh | Vasantrao Pawar Wholesale Medical and General Stores | 19/11/2023 | 25/11/2023 |
| 25 | Khairnar Pratham | Rahul Enterprises | 19/11/2023 | 25/11/2023 |
| 26 | Kushwah Soumya | Mahadev Agencies | 21/11/2023 | 27/11/2023 |
| 27 | Kulkarni Vaibhav | Mahadev Agencies | 21/11/2023 | 27/11/2023 |
| 28 | Labhade Sakshi | Shri Medical and General store | 23/11/2023 | 29/11/2023 |
| 29 | Laddha Divya | P. S. Pharma | 16/11/2023 | 20/11/2023 |
| 30 | More Komal | Prasu Pharma Wholesale Store | 25/11/2023 | 02/12/2023 |
| 31 | More Saurabh | Mr. Vijay Chavan Medical Store | 26/11/2023 | 01/12/2023 |
| 32 | Mungala Akash | Shree Pharma Medical | 15/11/2023 | 30/11/2023 |
| 33 | Nehere Khushi | Kiran Agencies | 23/11/2023 | 02/12/2023 |
| 34 | Paithankar Kartik | Dr. Vijay pvt. Ltd | 13/11/2023 | 18/11/2023 |
| 35 | Pandulakar Tanvi | Moonlight agencies | 03/11/2023 | 11/11/2023 |
| 36 | Pardeshi Tejaswini | Mhalsa distributors | 19/11/2023 | 25/11/2023 |
| 37 | Patil Srushi | Sumedh Medical | 11/11/2023 | 19/11/2023 |
| 38 | Patil Vaishnavi | Renuka Pharma | 11/11/2023 | 26/11/2023 |
| 39 | Pawar Atharva | Samarth Medical & General store | 10/11/2023 | 19/11/2023 |
| 40 | Pawar Darshan | Shree Pharma Medical | 15/11/2023 | 30/11/2023 |
| 41 | Pawar pavitra | Dr. Vijay Pharma pvt. Ltd. | 13/11/2023 | 23/11/2023 |
| 42 | Piratwad Santosh | Mahadev Agency | 21/11/2023 | 27/11/2023 |
| 43 | Rajput Kunal | Mahadev Agency | 21/11/2023 | 27/11/2023 |
| 44 | Ramteke Suhani | Om Pharma | 19/11/2023 | 25/11/2023 |
| 45 | Sangle Arpita | Dr. Vijay Pharma Pvt. Ltd | 13/11/2023 | 18/11/2023 |
| 46 | Shinde Bharat | Shri Medical & General Stores | 19/11/2023 | 25/11/2023 |
| 47 | Shinde Diksha | S. S. Pharma medical and General Store | 01/11/2023 | 20/11/2023 |
| 48 | Shinde janhavi | Unity sales-2, Gole colony Nashik | 19/11/2023 | 29/11/2023 |
| 49 | Shinde Sakshi | Shree Dutt Surgical and pharmaceuticals | 12/11/2023 | 17/11/2023 |
| 50 | Silgamwar girish | Akshada medical and general Store, Dindori | 19/11/2023 | 25/11/2023 |
| 51 | Sonawane Roshani | Shreejay Medical wholesale and retail, Adgaon | 19/11/2023 | 25/11/2023 |
| 52 | Sose gayatri | Unity sales-2, Gole colony Nashik | 19/11/2023 | 29/11/2023 |
| 53 | Supe Jay | Shreepharma wholesale and retail, Nashik | 15/11/2023 | 18/11/2023 |
| 54 | Tandale Shreyas | Prasu pharma Wholesale store, Nashik | 25/11/2023 | 02/12/2023 |
| 55 | Thakur Vedangi | Shaurya pharma, Nashik | 19/11/2023 | 25/11/2023 |
| 56 | Thingle Kunal | Akshada Medical and General Store, janori, Nashik | 19/11/2023 | 25/11/2023 |
| 57 | Upasani Chaturya | Laxmi pharma and pharmaceutical distributor, nashik | 16/11/2023 | 20/11/2023 |
| 58 | Vishwakarma Poornima | Shreejay Medical wholesale and retail, Adgaon | 19/11/2023 | 25/11/2023 |
| 59 | Wagh Vishal | Sai Pharma Wholesale and Retail, Adgaon, nashik | 15/11/2023 | 18/11/2023 |
| 60 | Wagh tejaswini | Akshada medical and general Store, Dindori | 12/11/2023 | 26/11/2023 |
| 61 | Wagh Sayali | Mayur Agencies, nashik | 11/11/2023 | 20/11/2023 |
| 62 | Wagh Shreya | Shree Pharma Wholesale and Retail, golecolony nashik | 15/11/2023 | 18/11/2023 |
| 63 | Ware Suyash | Akshada medical and general Store, Dindori | 08/11/2023 | 15/11/2023 |

S. Y B. Pharm (Sem III) Division: A

S. Y B. Pharm (Sem III) Division: B

**METs, Institute of Pharmacy,
Bhujbal Knowledge City, Adgaon, Nashik-03**

Hospital Posting

Academic Year 2023-24

As per PCI Hospital posting in various departments was arranged in **Apollo Hospital** on weekly basis from August 2023 to February 2024 for Second, Third and Fourth year Pharm D students. (Schedule Time 10.00 AM – 3.00 PM)

| Sr No | Class | Month | No. of visits | No. of Students |
|--|-------------------|-----------|---------------|-----------------|
| 1 | | Sept 2023 | 4 | 34 |
| | | Oct 2023 | 4 | |
| | | Nov 2023 | 2 | |
| | | Dec 2023 | 4 | |
| | | Jan 2024 | 3 | |
| | | Feb 2024 | 2 | |
| Total No. 19 of Visit (Total hours 114 Completed) | | | | |
| 2 | T Y Pharm D | Aug 2023 | 2 | 30 |
| | | Sept 2023 | 4 | |
| | | Oct 2023 | 4 | |
| | | Nov 2023 | 1 | |
| | | Dec 2023 | 4 | |
| | | Jan 2024 | 3 | |
| | | Feb 2024 | 2 | |
| Total No. 20 of Visit (Total hours 120 Completed) | | | | |
| 3 | Fourth Yr Pharm D | Aug 2023 | 2 | 32 |
| | | Sept 2023 | 3 | |
| | | Oct 2023 | 4 | |
| | | Nov 2023 | 2 | |
| | | Dec 2023 | 4 | |
| | | Jan 2024 | 3 | |
| | | Feb 2024 | 2 | |
| Total No. 20 of Visit (Total hours 120 Completed) | | | | |



Dr. Akshay M. Khade

Hospital Posting Incharge



Dr. Sanjay J. Kshirsagar

Principal

PRINCIPAL
MET's Institute of Pharmacy
Adgaon, Nashik-03

Topic Tracking Form. 2023-24

Name of the faculty Member: Mrs. Nayna .k. Patil mam

Class: F.Y. D.pham Sem: —

Subject: pharmacognosy .

Div.: A

Name of the topic: classification of drug .

To be filled by Students: (Tick the appropriate box)

- | | | | | | | |
|--|-------------------------------------|-----------|-------------------------------------|------|--------------------------|----|
| 1. Whether the summary of the topic is received? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | | |
| 2. The points/sub points are understood? | <input checked="" type="checkbox"/> | Excellent | <input type="checkbox"/> | Good | <input type="checkbox"/> | No |
| 3. Whether the applications are discussed? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | | |
| 4. Whether the notes are provided? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | | |
| 5. Whether the question banks are provided? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | | |
| 6. Whether the assignment/class tests are conducted? | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | | |
| 7. Whether GPAT related topic / MCQ discussed | <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No | | |
| 8. Repetition required? | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No | | |

If Yes, which points: _____

Treutikshy

Students' Representative Sign

Instructions for students:

1. The form is to be filled in duplicate within two days after the completion of the topic.
2. Students have to discuss among themselves while filling the form.
3. The Filled form is to be submitted in the Drop box provided for it

Topic Tracking Form- 2023-24

Name of the faculty Member: Mrs Sarika patil

Class: F.Y D Pharm Sem: -

Subject: pharmaceuticals

Div.:

Name of the topic: pharmaceutical aids

To be filled by Students: (Tick the appropriate box)

- | | | | |
|--|---|--|-----------------------------|
| 1. Whether the summary of the topic is received? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 2. The points/sub points are understood? | <input checked="" type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> No |
| 3. Whether the applications are discussed? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 4. Whether the notes are provided? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 5. Whether the question banks are provided? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 6. Whether the assignment/class tests are conducted? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 7. Whether GPAT related topic / MCQ discussed | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 8. Repetition required? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | |

If Yes, which points: _____




Shashree

Students' Representative Sign

Instructions for students:

1. The form is to be filled in duplicate within two days after the completion of the topic.
2. Students have to discuss among themselves while filling the form.
3. The Filled form is to be submitted in the Drop box provided for it

METs Institute of Pharmacy
Bhujbal Knowledge City
Student Mentoring Distribution List F Y Pharm D.2023-24

| Roll No | Name of Student | Name of Mentor | Signature of Mentor |
|---------|-----------------------------|--|---|
| 1. | Ajay Aadya | Dr Akshay Khade |  |
| 2. | Bhadane Mrunmayi Rajendra | | |
| 3. | Chaudhari Mansi Chandrakant | | |
| 4. | Chavan Shruti Vinayak | | |
| 5. | Chavan Sneha Vasant | | |
| 6. | Darunte Pratik Uddhav | | |
| 7. | Deore Bhavesh Avinash | | |
| 8. | Dhongade Janavi Rajendra | | |
| 9. | Jadhav Kunal Avinash | | |
| 10. | Kadam Madhura Mukund | Dr Ganesh Giri Current Mentor: Mr. Ajith |  |
| 11. | Naikwadi Mrunmayi Vikram | | |
| 12. | Nair Aryan Manoj | | |
| 13. | Nikam Om Pravin | | |
| 14. | Pawar Pooja Sanjay | | |
| 15. | Pawar Yash Sunil | | |
| 16. | Samsher Chetna Daulat | | |
| 17. | Sawant Ayush Ramkrishna | | |
| 18. | Shinde Nivedita Ratnakar | | |
| 19. | Shisode Gangasagar Dinanath | Mrs Vaishanvi Kulkarni |  |
| 20. | Singh Shourya Manoj | | |
| 21. | Sisode Pruthviraj Sajjan | | |
| 22. | Suryawanshi Hitesh Ashok | | |
| 23. | Tajanpure Siddhi Manohar | | |
| 24. | Lambade Nivedita Govindraaj | | |
| 25. | Lohkare Jagruti Santosh | | |
| 26. | Madhe Tejal Bhaskar | | |
| 27. | Tilwani Chandni Manoj | | |
| 28. | Tiwari Sarthak Dipak | | |
| 29. | Tupe Rutuja Prasad | | |
| 30. | Unare Sanika Anil | | |
| 31. | Vaishnav Purva Deepak | | |
| 32. | Wagh Sanskruti Ganesh | | |



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MET's Institute of Pharmacy
Adgaon, Nashik-3.




Mentoring Co ordinator
Dr. Ahirrao S. P.

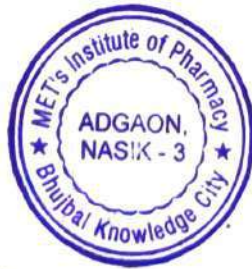
MET's Institute of Pharmacy

Bhujbal Knowledge City

Student Mentoring Distribution List DSY B Pharm 2023-24

| Sr. No | Name of student | Name of mentor | Signature of Mentor |
|--------|----------------------------------|---|---------------------|
| 1. | Deore Gayatri Arun | Previous mentor: Mr Bhushan Mali | |
| 2. | Deore Vibhuti Deepak | | |
| 3. | Dokhale Gayatri Navnath | Mentor from oct 2023: Mrs Pratiksha sonawane | <u>Pratiksha</u> |
| 4. | Gavit Dipali Shantaram | | |
| 5. | Gujar Sneha Laxman | | |
| 6. | Inor Aniket Sonyabapu | | |
| 7. | Khaire Kunal Uttam | Mrs Priya Gadakh | <u>Priya</u> |
| 8. | Kshirsagar Tushar Anil | | |
| 9. | Labhade Sakshi Subhash | | |
| 10. | More Saurabh Barku | | |
| 11. | Musale Devyani Pralhad | Mr Abhish Jadhav | <u>Abhish</u> |
| 12. | Pardeshi Tejaswini Surendrasingh | | |
| 13. | Rajput Kunal Gokul | | |
| 14. | Wadekar Ayush Bhartkumar | | |
| 15. | Wagh Shreya Yogesh | | |









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Student Mentoring Distribution List F Y B Pharm 2023-24

| Sr. No | Name of student | Name of Mentor | Signature of Mentor |
|--------|------------------------------------|---------------------|---|
| 1. | Algat Diksha Navnath | Dr S S Sonawane |  |
| 2. | Awaghad Tanushka Nandkishor | | |
| 3. | Aware Payal Vikas | | |
| 4. | Bansi Tanishka Rajendra | | |
| 5. | Baviskar Tanishka Kiran | Dr Santosh Chhajed |  |
| 6. | Bhalerao Swapnil Anil | | |
| 7. | Bhandari Shravani Chandrashekhar | | |
| 8. | Bhavsar Bhagyesh Paresh | | |
| 9. | Bhondve Mrudula Prashant | | |
| 10. | Bhore Srushti Mangesh | | |
| 11. | Chaudhari Divya Bhikchand | | |
| 12. | Chaurasia Rinki Jitendra Prasad | | |
| 13. | Dahibhate Samarth Ashok | | |
| 14. | Dalvi Soham Sopanrao | Dr Gitanjali Deokar |  |
| 15. | Dawange Pratiksha Vishwas | | |
| 16. | Deshpande Dhruv Makarand | | |
| 17. | Dhake Tushar Devendra | Dr Smita Kakad |  |
| 18. | Dhande Pooja Santosh | | |
| 19. | Dhomse Vedant Jitendra | | |
| 20. | Dhumal Nayan Vijay | | |
| 21. | Gaikwad Advika Suresh | | |
| 22. | Mudhale Yuvraj Pradeep | | |
| 23. | Gaikwad Anshu Vinod | Mr Rohan Ahire |  |
| 24. | Gaikwad Prathama Pramod | | |
| 25. | Gaikwad Srujan Santosh | | |
| 26. | Gangurde Sakshi Suresh - cancelled | | |
| 27. | Gavhale Khushi Kishor | | |
| 28. | Gavit Harsh Santosh | | |
| 29. | Bhadange Priyanka Navnath | | |
| 30. | Nikam Tejaswini Dinesh | | |
| 31. | Pagare Vidhi Vijay | | |
| 32. | Pankar Abhishek Sunil | | |
| 33. | Gavit Sanjay Daulat | Mr Pratap Pawar |  |
| 34. | Gavit Tejaswini Satu | | |
| 35. | Ghodekar Varun Raviraj | | |
| 36. | Ghule Sakshi Rajendra | Dr Anjali Thakare |  |
| 37. | Gujar Shlok Sachin | | |
| 38. | Gulve Shraddha Kiran | | |
| 39. | Gumnar Rameshwari Ratan | | |
| 40. | Gumnar Sakshi Raghunath | | |
| 41. | Hagote Pooja Navnath | | |






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| | | | |
|-----|------------------------------|---|---|
| 42. | Hajare Sahil Shrikrishna | Mr Rakesh Shelke |  |
| 43. | Jadhav Atharva Deepak | | |
| 44. | Jadhav Rahul Krishna | | |
| 45. | Sanap Mrunal Navnath | | |
| 46. | Jamnik Anurag Gautam | Mr Shubham Khairnar |  |
| 47. | Jumde Shubhangi Atmaram | | |
| 48. | Kadam Aditya Ganesh | | |
| 49. | Kantale Prem Nilesh | | |
| 50. | Karanjakar Ajay Dattatraya | | |
| 51. | Katkade Kalyani Kisan | | |
| 52. | Khairnar Komal Raghunath | Mr Sneh Sonkamble |  |
| 53. | Khairnar Pournima Anil | | |
| 54. | Khairnar Tanvi Sopan | | |
| 55. | Kushwaha Shubham Birendra | | |
| 56. | Lonsane Ramkisan Narayan | | |
| 57. | Mahajan Dnyaneshwari Uddhav | | |
| 58. | Mahajan Harshal Vivek | Mrs Vaidehi Gaidhani |  |
| 59. | Mahajan Om Manish | | |
| 60. | Mahale Jayesh Atmaram | | |
| 61. | Jadhav Sayali kailash | | |
| 62. | Mahire Mayur Kiran | | |
| 63. | Mandlik Om Sachin | | |
| 64. | Masule Gauri Pravin | Mrs Shital Jadhav Mrs. Kavita Chandramore |  |
| 65. | Mehetre Tanaya Abhijit | | |
| 66. | More Rutuja Pravin | | |
| 67. | Mutkule Prathmesh Dilip | | |
| 68. | Nawale Saurabh Youraj | | |
| 69. | Nikam Sanika Rajendra | | |
| 70. | Niphade Pranjal Balasaheb | Mr R T Mogal |  |
| 71. | Pagar Sanket Babu | | |
| 72. | Palde Rohit Vilas | | |
| 73. | Pandey Somya Nanda | | |
| 74. | Pathrikar Vishal Hanuman | Mrs Smita Kothmire |  |
| 75. | Patil Anuj Vivek | | |
| 76. | Patil Ayushi Ravindra | | |
| 77. | Patil Dhiraj Ravindra | | |
| 78. | Patil Gauri Dilip | | |
| 79. | Patil Prathamesh Shailesh | Mrs Suvarna Bhalerao |  |
| 80. | Patil Rutika Arun | | |
| 81. | Patil Vaishnavi Sandip | | |
| 82. | Pawar Krupa Paresh | | |
| 83. | Pingal Shreya Prakash | | |
| 84. | Purkar Gargi Chandrakant | | |


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| | | | | |
|------|-----------------------------|---------------------|---|--|
| 85. | Raghubhai Mir Radhaben | Mr Ganesh Shinde |  | |
| 86. | Rathod Jivan Madhukar | | | |
| 87. | Raut Trupti Raju | | | |
| 88. | Satbhai Sakshi Shivaji | | | |
| 89. | Shah Minal Kirtikumar | Mrs Devyani Chavan |  | |
| 90. | Shirke Sanjivance Vaibhav | | | |
| 91. | Sonar Neeraj Jagannath | | | |
| 92. | Sonawane Aditi Vikas | | | |
| 93. | Supare Harsh Rahul | | | |
| 94. | Sutar Vedant Kishor | Mr Tathgat Pagare |  | |
| 95. | Tupe Atharva Balasaheb | | | |
| 96. | Vardekar Pranav Manoj | | | |
| 97. | Vetal Sarthak Anil | | | |
| 98. | Wagh Prathmesh Jagdish | | | |
| 99. | Wagh Ritu Yogesh | | | |
| 100. | Waje Rutuja Kisan | Dr Umesh Laddha |  | |
| 101. | Watpade Prajakta Pundlik | | | |
| 102. | Weljali Shrawani Rajendra | | | |
| 103. | Savandare Karishma Tukaram | | | |
| 104. | Shirsath Roshan Sanjay | Dr Neelam Dashputre |  | |
| 105. | Sonawane Pratik Dnyaneshwar | | | |
| 106. | Ahire Prathamesh Aabaji | | | |
| 107. | Bagul Jidnyasa Pravin | | | |
| 108. | Date Yash Yogesh | | | |
| 109. | Dive Vaidehi Dattatrey | | | |
| 110. | Dokhale Sakshi Dilip | | | |
| 111. | Gangurde Parth Gorak | | | |
| 112. | Purkar Sakshi Nitin | | | |
| 113. | Raut Simran Manoj | | | |


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Mentoring coordinator
Dr. Ashima S.P.

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CERTIFICATE

This is to certify that

Mr./Miss./Mrs. Shraddha Bahiru Sanap

of F.Y./ S.Y./ ~~T.Y./~~ Final B. Pharmacy (Sem. III) / ~~M. Pharmacy (Sem. I/II) /~~
PHARM D. (F.Y./ S.Y./ ~~T.Y./~~ Fourth Yr./ Fifth. Yr.)

has satisfactorily completed the Practical Courses of Study as laid down by
the University Pune

For the subject of Physical pharmaceutics - I

During the academic year 2023 -2024 and this practical Record represents

the work done by him/her in Pharmaceutics Department

Univ. Exam No. : 6750

Batch No. : E

Date : 22/1/2024

Practical Incharge

External Examiner

Principal
Dr. S. J. Kshirsagar

MET's Institute of Pharmacy
Bhujbal Knowledge City
Adgaon NASHIK 422 003

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| Sr. No. | Name of Experiment | Page No. | Date Of Experiment | Expri- ment | Viva/ Synopsis | Total Marks | Sign & Date |
|---------|---|----------|---------------------|-------------|----------------|-------------|-------------|
| 1. | To determine solubility of given substance (NaCl) at room temp. by evaporation Method. | 05 | 15/9/23 | | | 83 | <i>m</i> |
| 2. | To determine heat of solution of substance by solubility Method. | 08 | 22/9/23 | | | 4 | <i>m</i> |
| 3. | To determine partition coefficient of iodine in CCl_4 -water system. | 15 | 6/10/23 | | | 4 | <i>m</i> |
| 4. | To determine partition coefficient of benzoic acid in benzene-water system. | 17 | 13/10/23 | | | 4 | <i>m</i> |
| 5. | To determine critical solution temperature of phenol-water system | 19 | 3/11/23 | | | 83 | <i>m</i> |
| 6. | To determine impact of third component on the critical solution temperature of phenol-water system. | 21 | 3/11/23 24/11/23 | | | 83 | <i>m</i> |
| 7. | To determine the surface tension by gill drop weight method. | 25 | 24/11/23 | | | 4 | <i>m</i> |
| 8. | To determine the surface tension of sample by drop count method. | 27 | 24/11/23 | | | 4 | <i>m</i> |

Average =

Aim - To determine critical solution temperature of phenol-water system.

Reference -

1. CVS Subramanyam, 'Essential of physical pharmacy, 2nd edition, Vallabh prakashan pg no - 94-101.
2. H.N. More, A.A. Hajare, principle physical pharmacy, 1st edition August 2010, career publication, pg no - 95-96.

Requirements -

Chemicals - phenol, distilled water.

Apparatus - Hard glass, test tube, pipette, thermometer, beaker, waterbath.

Procedure -

- 1) Weigh accurately 4g (3.73 ml) of phenol & transfer to hard glass test tube.
 - 2) Add 2ml water in phenol and heat it on water bath. Determine temperature T_1 °C at which there is a formation of homogenous system.
 - 3) Remove test tube from water bath & allow it to cool. Determine temperature T_2 °C where turbidity start to reappear. Calculate miscibility temperature of composition as average of T_1 & T_2 .
- Add 2ml of water in the same system

Observation -

- Weight of phenol - $W_1 = 4\text{g}$
- Density of phenol - 1.071g/ml
- Density of water - 1g/ml

Observation Table -

| Volume of H_2O | wt of H_2O $W_2 = V \times \rho_w$ | Phenol % w/w $\frac{W_1}{W_1 + W_2} \times 100$ | Transition temperature | | Mean $\frac{T_1 + T_2}{2}$ |
|--------------------------------|---|--|------------------------|-------|-------------------------------|
| | | | T_1 | T_2 | |
| 2 | 2 | 66.6 | 87 | 85 | 86 |
| 4 | 4 | 50 | 89 | 88 | 85.5 |
| 6 | 6 | 40 | 86 | 85 | 85.5 |
| 8 | 8 | 33.3 | 84 | 83 | 83 |

and determine transition temperature of this composition as describe above.

4) Repeat the same procedure until miscibility temperature reaches to the maximum value and fall down to around 55 to 50 °C.

⑤ plot the graph of miscibility temperature on y-axis v/s percentage w/w of phenol on x-axis & determine CST.

Result -

The transition temperature of phenol water system was found to be 76.5 °C

Aim - To determine impact of third component on the critical solution temperature of phenol-water system.

Reference -

① CVS. Subramanyam, "Essentials of physical pharmacy" 11th edition, Nallabh prakashaan pg no - 94 - 101.

② H.N. More, A.A. Hajare, principle physical pharmacy, 1st edi., August 2010, Career Publication, Pg no - 95 - 96.

Requirement -

① Glasswares - Hard glass test tube, beakers, pipette, Analytical balance, calibrated weight, thermometer etc.

② Chemicals - phenols, NaCl, Distilled water

Procedure -

Same as per Exp no :- 05
Only difference is we add 100 mg NaCl in phenol and then add 2 ml of water

Result -

The CST of phenol water system by impact of third component was found to be 88.5°C .

Observation table -

| Volm of H_2O (ml) | wt of H_2O $W_2 = V \times \rho$ | phenol % w/w $\frac{W_1}{W_1+W_2} \times 100$ | T_1 | T_2 | Avg $\frac{T_1+T_2}{2}$ |
|---------------------|---------------------------------------|--|-------|-------|-------------------------|
| 2 | 2 | 66.6 | 87 | 85 | 86 |
| 4 | 4 | 50 | 89 | 88 | 88.5 |
| 6 | 6 | 40 | 86 | 85 | 85.5 |
| 8 | 8 | 33.3 | 84 | 82 | 83 |

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❖ CERTIFICATE ❖

This is to certify that,

Mr. / Miss. / Mrs. Ankita Shivkant Jha

of F.Y. / S.Y. / ~~T.Y.~~ / Final Year B. Pharmacy (Sem. V) / M. Pharmacy
(Sem. I / II) has satisfactorily completed the Practical Courses of Study as laid
down by the Savitribai Phule Pune University.

For the subject of Industeial pharmacy - I

During the academic year 2024 - 2025 and this practical Record represents
the work done by him / her in Pharmaceutics Department

Univ. Exam No. 14997

Batch No. C

Date 9/11/24

Practical Incharge

External Examiner

Dr. S. J. Kshirsagar
PRINCIPAL

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Adgaon, NASHIK 422 003

Principal



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| Sr. No. | Name of Experiment | Page No. | Date of Experiment | Experiment | Viva/Synopsis | Total Marks | Sign. & Date |
|---------|---|----------|--------------------|------------|---------------|-------------|--------------|
| 1. | Assignment no 1 Exp-1) | 1 | | | | | |
| 2. | To perform preformulation Studies of paracetamol Exp-2 | 3 | 2/7/24 | 02 | 02 | 04 | P |
| 3. | To perform preformulation Studies of Aspirin | 6 | 9/7/24 | AB | AB | - | P |
| 4. | Assignment no 2 Exp-3) | 9 | | | | | |
| 5. | To prepare & evaluate Aspirin tablet using direct compression method Exp-4 | 13 | 16/7/24 | 02 | 02 | 04 | P |
| 6. | To prepare & evaluate paracetamol tablets by wet granulation method | 17 | 23/7/24 | | | | |
| | | | 30/7/24 | AB | AB | AB | P |
| 7. | To prepare & submit vanishing cream (o/w) type (5g) | 22 | 6/8/24 | 03 | 02 | 05 | P |
| 8. | prepare & submit 10g of cold cream | 25 | 13/8/24 | 03 | 02 | 05 | P |
| 9. | To perform quality control test for marketed capsules (CIP) | 28 | 20/8/24 | 02 | 02 | 05 | P |

Average =

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| Sr. No. | Name of Experiment | Page No. | Date of Experiment | Experiment | Viva/Synopsis | Total Marks | Sign. & Date |
|---------|--|----------|--------------------|------------|---------------|-------------|--------------|
| 10 | To prepare & submit calcium gluconate injection (2ml) | 31 | 10/9/24 | Ab | Ab | - | 2 |
| 11 | To prepare & submit Ascorbic acid injection. | 34 | 24/9/24 | 03 | 02 | 05 | 2 |
| 12 | To prepare & submit Ateopine sulphate eye drops (2ml) | 36 | 1/10/24 | 02 | 02 | 04 | 2 |
| 13 | To perform quality control test for marketed tablet (IP) | 38 | 1/10/24 | 03 | 02 | 05 | 2 |
| 14 | To carry out different evaluation test of glass container (IP) | 41 | 8/10/24 | 03 | 02 | 05 | 2 |
| 15 | To prepare & submit Lipstick (10g) | 43 | 15/10/24 | 02 | 02 | 04 | 2 |
| 16 | To study working principle of Rapid mixer granulator | 45 | 15/10/24 | 03 | 02 | 05 | 2 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Average = 4.0

Experiment no 14

Aim - To study working and principle of Rapid Mixer Granulator [RMG]

Reference -

- 1) A Laboratory Manual for pharmaceuticals - I, MSBTE Humbrain pg no 142-144
- 2) Larry L. Augsburger, Steven W Haag, 'pharmaceutical Dosage form : Volume 1', CRC press, 2008, pg no 129-135

Requirements -

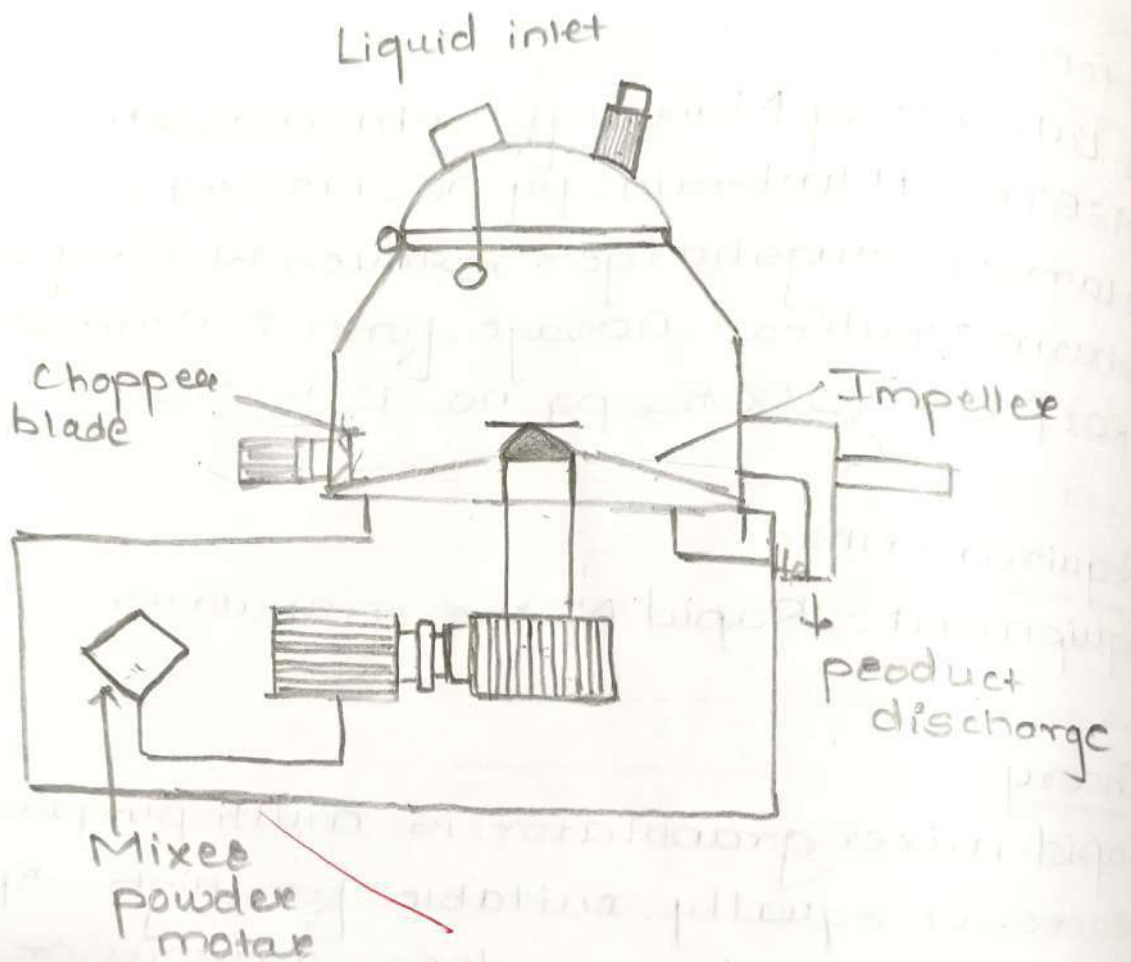
Equipment - Rapid Mixer granulator

Theory -

Rapid mixer granulator is multi purpose processer equally suitable for high speed dispersion of dry powders, aqueous or solvent granulation, effervescent products & melt pelletization

Wet granulation is a common step in manufacture of many solid dosage pharmaceuticals. Wet granulation can be accomplished in mixer granulator. A mechanical impeller moves the powder while liquid binder is applied onto a moving powder bed. Addition of liquid binder starts the formation of granules. The granulator also has a chopper.

Diagram



Rapid Mixer granulator

Impeller & chopper are mainly responsible for wet granulation in the rapid mixer granulator. It is designed to achieve excellent mixing & consistent granules at lower operating cost along with higher productivity.

The granulation is conventionally performed in following process step -

- Mixing of dry material at high impeller & chopper speeds for few min
- Addition of liquid binder by pouring it on the powder, while both the impeller & chopper are running at low speed
- Wet massing with both agitators running at high speed

Impellers - This are fixed at bottom of dome shaped stainless steel. It has full length & two half length blades. It is designed in such way that small blade lift the material & full length blades push material to mix well. The impellers breaks up the wet mass into small pieces & granules.

Chopper - Specially designed small blades located at bottom of dome. The primary function is to cut the lumps into smaller fragments those are mixed equally by impeller. It rotates at high

Speed (1440/2880) RPM to give easy & uniform granulation. Chopper does not have any effect on the granule size when impeller speed is high (above 200 rpm)

Discharge port - Mounted horizontally into dome with vertical downward opening. Granules are unloaded in container through it. Opening of port is operated by pneumatic cylinder that req 3-5 kg/cm² press use of compress air.

Working principle -

The rapid mixer granulator is mixing unit with a bottom entry agitator & side mounted chopper for granulation. It is used for dry blending, wet mixing, preparation of dough & granulation i.e cutting of wet mass into small size granules. It works on basic principle of agitation of the contents of the bowl at moderate speed & then running a specifically profiled cutter blade at high speeds into wet mass.

Dry mixing takes about 3-5 min to mix the ingredients, wet mixing takes 5-10 min to make the wet mass of material while granulation process takes 5-10 min to 0.5mm to 1.5mm sized granules. Mixing time depends upon quantity & size

Result - The working principle of rapid mixer granulator was studied

16/10/24