**REPORT**

*Industry Exposure and Career Exploration: Innovative Teaching and Experiential Learning*

*Visit to Berger Paints, Sandila, Hardoi, Uttar Pradesh*

Organized by

**Department of Chemistry**

**Date:22nd February-25th February 2025; Duration: 3 days**

*Berger Paints, Sandila, U.P.*

Part of the academic curriculum, students from Integral University, Lucknow, embarked on an industrial visit to Berger Paints' manufacturing unit at Sandila, Hardoi, Uttar Pradesh. This visit aimed at providing students with hands-on experience and insights into the paint manufacturing industry, enhancing their understanding of industrial processes and practices.

**Pre-Visit SOPs**

1. Approval Letter from Head HR, **Mr. Pranab Bute**
2. Notice Release about the Trip
3. Consent Form from Parents
4. Presentation about the briefing of Paint Industry by **Dr. Farhat Aisha Ansari**
5. Prescribed format given to students to compile information during on-site visit of the Berger Paint Industry.

**Day 1:** Industrial Visit to Berger Paints, Sandila, U.P.

**Date:** 22nd February 20025 (Saturday)

**Activities:** Berger Paints' manufacturing unit at Sandila, Hardoi, Uttar Pradesh



**Welcome and Introduction**

The students were warmly welcomed by the Berger Paints Plant head Mr. Gaurav Sinha & Mr. Pranab Bute Head HR. An introductory session was conducted to brief the students about the company's history, its operations in India, and the significance of the Sandila plant.

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*Berger Paints, Sandila, U.P. Plant Tour*

Students were taken on a guided tour of the manufacturing facility. They observed the production processes, including the preparation of water-based and solvent-based paints, construction chemicals, and putty. The tour highlighted the plant's modern and automated systems (use of Robots and knowledge about HMI interface), as well as its focus on sustainability, including the use of solar panels for power generation.

**1. Water-Based Paint Section**

This section is dedicated to the production of water-based paints. Students learned about the formulation and manufacturing process, including the mixing of pigments, resins, and additives to create a wide range of colors and finishes. The capacity of the plant is 15,000 KL/MT per month.

**2. Solvent-Based Paint Section**

The students observed the production of solvent-based paints, which are used for specific applications requiring durability and resistance to wear. They understood the importance of safety measures due to the volatile nature of solvents used in this process. The manufacturing capacity is of4,800 KL/MT per month

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**3. Construction Chemicals and Putty Section**

Berger Paints also manufacture construction chemicals and putty, which are essential for building and construction projects. Students gained insights into how these products are formulated and their role in enhancing the strength and durability of structures.

**4. Solar Power Generation**

The plant features solar panels that can power the entire facility on ideal weather days. This highlights Berger Paints' commitment to sustainability and reducing its carbon footprint. Students learned about the integration of renewable energy sources in industrial operations.



**5. Colourant and Stainer Sections**

Notably, these sections are managed and operated solely by women, reflecting Berger Paints' commitment to diversity and equal employment opportunities. Students observed the processes involved in creating colorants and stains, which are crucial for achieving the desired hues and finishes in paint products.

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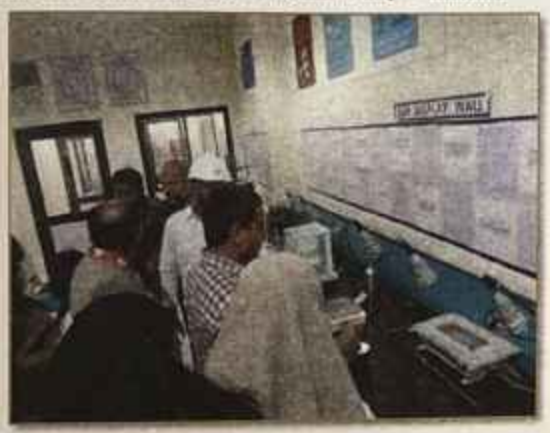
**6. Quality Control and Testing**

The plant has a dedicated quality control section where samples are tested for consistency, color accuracy, and durability. Students understood the importance of rigorous testing to ensure that products meet international standards and customer expectations.




**7. Packaging and Dispatch**

The final stage involves packaging the finished products in various sizes and formats for distribution. Students observed how the plant ensures efficient packaging and dispatch processes to meet market demands promptly.

This visit provided a comprehensive understanding of the paint manufacturing process, from raw material sourcing to final product dispatch, along with insights into sustainable practices and social responsibility initiatives.


*Lunch and Networking*

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Students had the opportunity to network with Berger Paints employees during lunch. This informal setting allowed them to gain personal insights into careers in the paint industry and understand the skills required for success.

*Interactive Session (Question &Answer Round)*

The interactive session with Mr. Gaurav Sinha, the Plant Head of Berger Paints, students from Integral University were engaged in a lively discussion about the chemistry of paint manufacturing. Mr. Sinha began by asking students to recall key terms related to the components of paint. He inquired about the primary components, to which the students responded by listing **pigments**, which provide color and opacity; **binders** (resins), which hold the pigments together and adhere them to surfaces; **solvents**, which maintain the paint's workable consistency; and **additives**, which enhance various properties of the paint, such as durability and drying time.

Throughout the session, Mr. Sinha provided detailed insights into the paint manufacturing process, from raw material selection to final product testing. He highlighted the importance of understanding chemical processes in producing high-quality paints that meet both customer needs and environmental standards. The interactive session was a valuable learning experience for the students, offering them a deeper understanding of the chemistry and technology involved in the paint industry.

**Gift Hampers to the students**

**In Q&A and feedback session 5 students received gift hampers**

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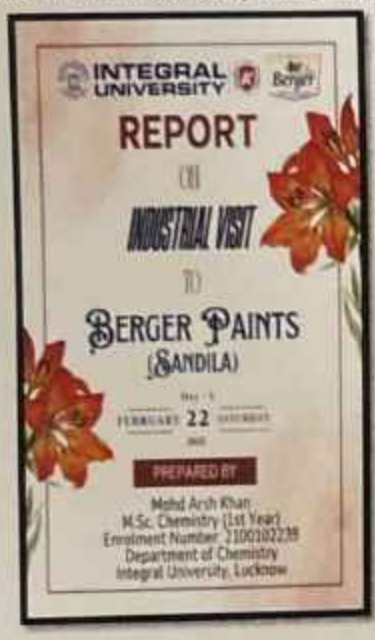
**Day 2:** Report Submission and Group Presentation
**Date:** 24th February 2025 (Monday)

The second day of the **Industry Exposure & Career Exploration** program focused on **academic reflection and skill development** through structured activities. Students were required to consolidate their learning experiences from the **industrial visit to Berger Paints** by preparing **student reports** and engaging in **group presentations**.

Each participant submitted a **detailed student report**, documenting key observations, technical insights, and industry processes witnessed during the visit. The reports emphasized areas such as **raw material storage, mixing & grinding, formulation & quality control, packaging & dispatch, and innovation in paint technology**.

Following the report submission, students participated in a **group presentation session**, where they shared their findings, discussed industry challenges, and provided comparisons between theoretical knowledge and practical exposure. The presentations were evaluated based on **clarity, technical accuracy, teamwork, and presentation skills**. The judging panel for the session included Dr. Andleeb Khan and Dr. Rahila Rahman Khan, who provided valuable feedback and assessed the students' performance.

The day concluded with insightful remarks from the judges and faculty members, who appreciated the students' efforts in critically analyzing industrial processes.






*Reports submitted by students*



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Insight into the PowerPoint Presentation by students: Judges Dr Andaleeb Khan (Department of Biosciences) & Dr Rahila Rahman (Department of Environmental Sciences) .

**Day 3:** Industry Insights and Career Exploration Quiz followed by Valedictory Session
**Date:** 25th February 2025 (Tuesday)

The final day of the **Industry Exposure & Career Exploration** program commenced with a **quiz competition**, where students showcased their knowledge gained throughout the event. Following the quiz, the **Valedictory Session** was held, where students shared their valuable **feedback**, reflecting on their experiences and key takeaways from the program.




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*A Glance into the Quiz conduction on 25th February 2025 in Room No. D113*

The session included the announcement of winners based on their **cumulative performance** in **PowerPoint presentations, student reports, assignments, and the quiz**.

Winner: **Drishti Tiwari (B.Sc. (Hons) Chemistry)**
Runner-up: **Mohd Arsh Khan (M.Sc. Chemistry)**



*Trophies were awarded in recognition of their outstanding performance*

As a token of appreciation, **the memento was** presented to the **Dean, Faculty of Science**, and the **Head, Department of Chemistry** for his support and guidance. Additionally, the **Program Coordinators, Dr. Farhat Aisha Ansari and Dr. Saimah Khan**, were also felicitated for their efforts in organizing the event successfully.


The program concluded on a high note, leaving students enriched with industry insights and practical learning experiences. The vote of thanks was delivered by **Dr Iqbal Azad**.

**Feedback Summary**

Students of Integral University from the B.Sc (IC), B.Sc (H) Chemistry, B.Sc (ZBC), M.Sc (Chem), and M.Sc (IC) programs provided overwhelmingly positive feedback on the Industrial Exposure & Career Exploration program and the associated industrial visit to Berger Paints, Sandila, U.P.

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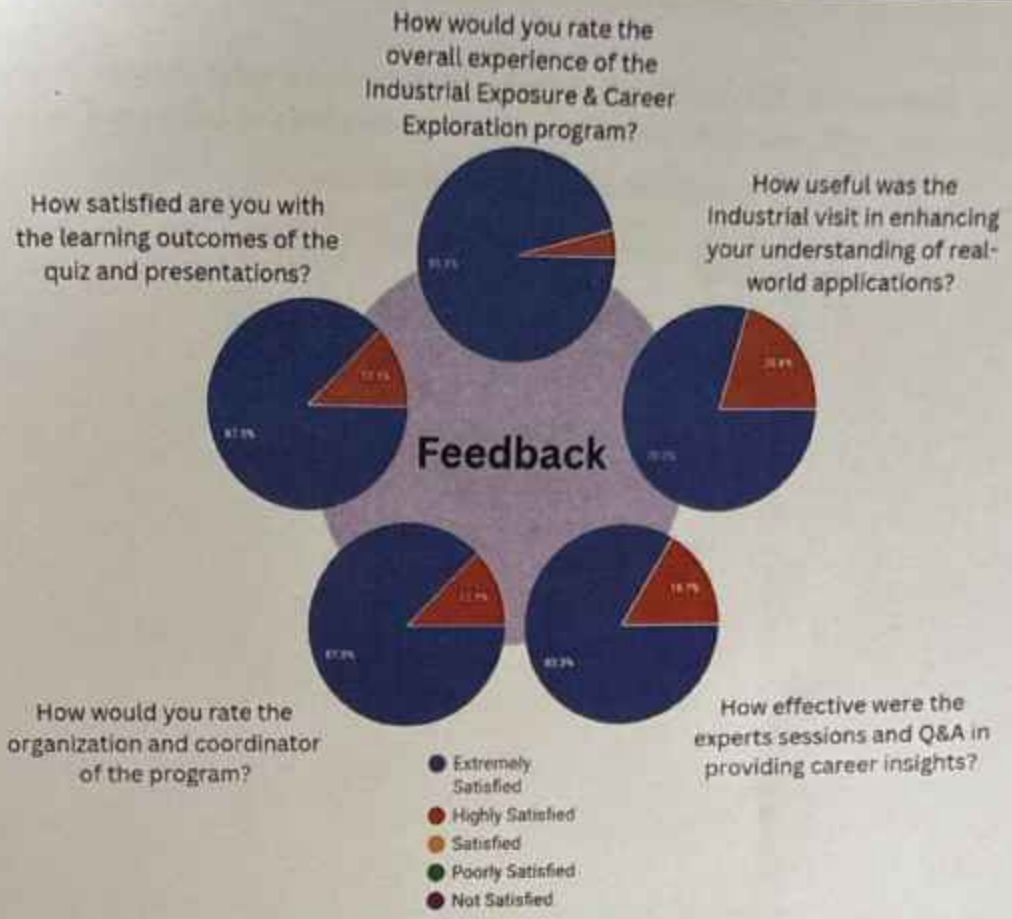


*Feedback Response from Students*

General feedback indicated that the visit helped bridge the gap between theoretical knowledge and practical application, sparking interest in potential career paths by showcasing real-world manufacturing processes, technologies, and industry practices. The industrial visit proved to be a resounding success for students across various science programs, who expressed strong satisfaction with the experience. They found the visit invaluable in connecting their classroom learning to real-world scenarios, with expert sessions offering significant career guidance. The program's structure, including quizzes and presentations, further enhanced their learning. Overall, the visit not only broadened their understanding of the industry but also ignited enthusiasm for future career opportunities by demonstrating the practical applications of their studies.


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CERTIFICATE OF PARTICIPATION

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*Heartfelt thank letter*

To express gratitude a thank letter was sent to Mr. Pranab Bute Head HR, for ensuring a smooth visit with excellent hospitality from Head Department of Chemistry, Dean of Sciences, Prof. Abdul Rahman Khan

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इंटीग्रल विश्वविद्यालय

Date: February 27, 2025

Mr. Pranab Bute
Human Resource Manager
Berger Paints India
Sindhi Plant, Uttar Pradesh

Subject: Heartfelt Gratitude & Future Prospects

Dear Mr.

On behalf of the Department of Chemistry, Integral University, I wish to convey my sincere gratitude for the warm hospitality, extensive coordination, and memorable learning extended by you, Rajat Vikas, Mr. Gaurav Mishra, and team during our recent industrial visit to Berger Paints, Sindhi Plant. The experience was truly enlightening, offering our students firsthand exposure to cutting-edge paint manufacturing technologies, advanced technological processes, and your organization's remarkable commitment to innovation and sustainability.

Your generosity in facilitating this visit is deeply appreciated. The insightful interactions with your team not only enhanced our students' understanding of the industry but also created fertile ground for collaboration between Integral University and Berger Paints India. We are particularly impressed by Berger Paints' dedication to eco-friendly practices, which perfectly align with our academic mission of fostering responsible research and industrial advancement.

Building on this enriching experience, we are keen to explore avenues for further collaboration between Integral University and Berger Paints India. We strongly believe that a strategic partnership in the form of training programs, student internships, and research initiatives would be mutually beneficial—enhancing practical learning for our students while contributing to the development of a skilled workforce for your esteemed organization.

We would like to discuss these possibilities in detail and explore a roadmap for a long-term, fruitful association. Please let us know a convenient time to connect, with you will have to collaborate on this exciting prospect.

Once again, we sincerely appreciate your time, efforts, and generosity in making the visit a memorable and insightful experience for the students. We eagerly look forward to strengthening our collaboration in the near future.

Warm regards,

Prof. Abdul Rahman Khan
Dean, Faculty of Science
Head, Department of Chemistry
Integral University, Lucknow
Email: rahman@iul.ac.in
Ph: +91-522-2890724

DEAN
FACULTY OF SCIENCE
INTEGRAL UNIVERSITY, LUCKNOW

Integral University, Lucknow-226026 (U.P.) India
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Respectfully Submitted by:

28.2.25

**Professor Abdul Rahman Khan**
Dean, Faculty of Science, &
Head, Department of Chemistry,
Integral University, Lucknow

Head
Department of Chemistry
Integral University, Lucknow

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# Department of Chemistry

Organizes

# EDUCATIONAL TOUR

To

## BERGER PAINTS, SANDILA

**Topic: Industry Exposure and Career Exploration: Innovative Teaching and Experiential Learning**

## EVENT DETAILS

**01 Industrial Visit**
Berger Paints
FEBRUARY 22 SATURDAY 2025

**02 Group Presentation**
Integral University, Lucknow
FEBRUARY 24 MONDAY 2025

**03 Quiz & Valedictory**
Integral University, Lucknow
FEBRUARY 25 TUESDAY 2025

**Registration Form**

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1947 TO 2047

**Coordinators**

Dr. Saimah Khan

Dr. Farhat Aisha Ansari

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## Department of Chemistry

## Industry Exposure and Career Exploration: Innovative Teaching and Experiential Learning

**Day 1: Industrial Visit to Berger Paints, Sandila, U.P.**

**22nd February 2025**

**Attendance Sheet**

| S.No | Enrolment Number | Name of the Student | Program/Branch | Signature |
|---|---|---|---|---|
| 01 | 2200104072 | SANIA MERAJ | B.SC (ZBC) | Sania |
| 02 | 2200103188 | NAFISH FATIMA | B.SC (ZBC) | Nafish |
| 03 | 2200104004 | ZEHRA JAMAL | B.Sc (ZBC) | Zehra |
| 04 | 2200101316 | Mohd Mubashshir Khan | BSc (ZBC) | |
| 05 | 2200103126 | Akhil Agnihotri | BSc (ZBC) | |
| 06 | 2200101973 | Tanveer | BSc (ZBC) | Tanveer |
| 07 | 2100102239 | Mohd Arsh Khan | MSc Chemistry | |
| 08 | 2100100143 | Ziaul Hussain | MSc Chemistry | Ziaul |
| 09 | 2100103623 | Mohd Faizan Ali | MSc Chemistry | Faizan |
| 10 | 2400104195 | Mohd Tabish | MSc Chemistry | Tabish |
| 11 | 2400102057 | Abdul Ahad | B.Sc(H) ICD | |
| 12 | 2400103423 | Mohammad Hammad | B.Sc(H) ZBC | |
| 13 | 2400106045 | Adamya K. Shukla | B.Sc(H) ZBC | |
| 14 | 2300100104 | Mohd Adil | B.Sc (H) IC | |
| 15 | 2300100356 | Sidra fatima | B.Sc(H) IC | Sidra |
| 16 | 2400103466 | Saud Ansari | M.Sc.(chem) | |
| 17 | 2400105710 | Ritika | Bsc.(H) IBC | |
| 18 | 2400101444 | Taneem Ayaz | B.Sc (H) Chem | |
| 19 | 2400104286 | Andleeb Fatima | B.Sc (H) Chem | |
| 20 | 2400102876 | Drishti Tiwari | B.Sc (H) Chem | Drishti Tiwari |
| 21 | 2400105513 | Jaisiddha Vishwakarma | M.Sc. Chem | |
| 22 | 2400102660 | Gaurav Yadav | M.Sc. Chem | |
| 23 | 2100102655 | Aaisha Suhail | M.Sc IC | |
| 24 | 2400100676 | Sushmita Verma | M.Sc IC | Sushmita |
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**Coordinator Signature:**

**Industry Representative Signature:**

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## Industry Exposure and Career Exploration: Innovative Teaching and Experiential Learning

**Day 1: Industrial Visit to Berger Paints, Sandila, U.P.**

**22nd February 2025**

**Attendance Sheet**

| S.No | Name of the Faculty | Designation | Signature |
|---|---|---|---|
| 1 | Dr. Saimah Khan | Associate Professor | |
| 2. | Dr. Farhat Ali Khan | Associate Professor. | |
| 3. | Dr. Iqbal Azad | Assistant Professor | |
| 4. | Dr. Nafees Ahmed | Assistant Professor | |
| 5 | Dr. [illegible] | Assistant Professor | |
| 6 | Tanjeal Ahmed Khan | Sr. Instructor | |
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**Coordinator Signature:**

**Industry Representative Signature:**

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**Day 2 : Report Submission and Presentation**

**24th February 2025**

**Attendance Sheet**

| S.No | Enrolment Number | Name of the Student | Program/Branch | Signature |
|---|---|---|---|---|
| 1 | 2100100143 | Ziaul Husain | M Sc (Chemistry) | Ziaul |
| 2 | 2100102239 | Mohd Arshi Khan | MSc Chemistry | Arshi |
| 3 | 2100103623 | Mohd Faizan Ali | MSc Chemistry | Faizan |
| 4. | 2100102655 | Aaisha Suhail | MSc (IC) | Aaisha |
| 5. | 2400104175 | Mohd Tabish | M.Sc chem. | Md. Tabish |
| 6. | 24001042 86 | Andleeb Fatima | B.Sc (H) Chem. | Andleeb |
| 7. | 2400102876 | Drishti Tiwari | B.Sc (H) Chem. | Drishti Tiwari |
| 8. | 2400101444 | Taneem Ayaz Khan | Bsc (H) chemistry | Taneem Ayaz |
| 9. | 2300100104 | Mohd Adil Abdul Ahad | BSc (H) IC. BSC(H) IC. | Adil Ahad |
| 10 | 2400102857 | | | |
| 11 | 2400106045 | Adamya Shukla | BSc(H) ZBC | Shukla |
| 12 | 2400103483 | Hamad Ritika | BSc(H) ZBC BSc(H) ZBC | Hamad |
| 13 | 2400105710 | | | |
| 14 | 2200103128 | Nafish fatima | B.Sc (ZBC) | Nafish |
| 15 | 2400103466 | Saud Ansari | M.Sc (chem) | Saud Ansari |
| 16 | 2400100676 | Sushmita Verma | M.Sc (IC) | Sushmita Verma |
| 17 | 2400105513 | Jaithila Dikhoakarma | M.Sc. Chem. | Jaithila |
| 18 | 2200104004 | Zehra Jamal | BSc. ZBC | |
| 19 | 2200103126 | Akhil Agnihotri | BSc ZBC | |

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## Industry Exposure and Career Exploration: Innovative Teaching and Experiential Learning

**Day 2: Report Submission and Presentation**

**24th February 2025**

**Attendance Sheet**

| S.No | Name of the Faculty | Designation | Signature |
|---|---|---|---|
| 1 | Dr. Saima Khan | Associate Professor | |
| 2 | Dr. Farhat A. Ansari | Associate Professor | |
| 3. | Dr Rahila R Khan | Assistant Professor | |
| 4. | Dr. Andleeb Khan | Associate Professor | |
| 5. | Dr. Tajmul Azad | Assistant Professor | |
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**Day 3 : Industry Insights and Career Exploration Quiz.**

**25th February 2025**

**Attendance Sheet**

| S.No | Enrolment Number | Name of the Student | Program/Branch | Signature |
|---|---|---|---|---|
| 1. | 2400103423 | Mohammad Hammad | B.Sc(H) ZBC | |
| 2. | 2400101444 | Taneem Ayaz KHAN | BSC(H)Chemist. | |
| 3 | 2400102857 | Abdul Ahad | BSC(H) IC | Ahad |
| 4. | 2400104286 | Anolleeb Fatima | BSC (H) Chem | |
| 5. | 2200104004 | Zehra Jamal | BSc ZBC 3rd year | |
| 6. | 2200103128 | Nafish fatima | BSc (ZBC) 3rd yr | Nafish |
| 7. | 2400103466 | Saled Anjam | M.Sc.(Chem) IST | |
| 8 | 2400100676 | Sushmita Verma | M.Sc (IC) | Sushmita |
| 9. | 2400105710 | Ritika | B.Sc.(H) ZBC | |
| 10 | 2300100356 | Sidra Fatima | BSC IC | Sidra |
| 11. | 2400102876 | Drishti Tiwari | BSC (H) Chem. | Drishti Tiwari |
| 12 | 2400106156 | Bashir Ali Mody | M.Sc. IC | |
| 13 | 210010 2239 | Mohd Ahsh Khan | M/c Chemistry | |
| 14 | 2100100143 | Ziaul Hussain | M.Sc Chemistry | Ziaul |
| 15. | 2400105513 | Jaishila | M.Sc. Chem. | Jaishila |
| 16. | 2100103623 | Mohd faizan Ali | M.Sc (Chemistry | faizan. |
| 17. | 2100102655 | Aaisha Sunail | MSC (IC) | Aaisha |
| 18. | 2400104175 | Mohd. Tabish | MSC (Chemistry) | Mohd. Tabish |
| 19 | 2300100104 | Mohd Adil | BSc (IC) | |
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