

Shri Tilok Jain Dnyan Prasarak Mandal's

Shri Anand College, Pathardi Dist: Ahmednagar (MS) 414102

**CERTIFICATE COURSE ON
COMPUTING SKILLS AND HANDS ON TRAINING IN ANALYTICAL
INSTRUMENTATION**

Year: 2022-23

The certificate course on “Computing skills and Hands on Training in Analytical Instrumentation”, started for the college students during the academic year 2018-2019. It provides the key knowledge base and laboratory resources to prepare students for careers as professionals in the field of Chemistry and particularly in Analytical instruments handling enabling them to interface not only with various branches of Chemistry (Organic, Inorganic, Physical, Biological, Industrial, Environmental, Pharmaceuticals etc.) but also with the related fields, and for professional courses and are as of research including medical, forensic, food, agriculture, dental, law, intellectual property, business programs etc. Characterization and analytical techniques are methods used to identify, isolate or quantify chemicals or materials, or to characterize their physical properties. They include spectroscopy, electrochemical analysis, and other measurements used in Chemistry and material science. The instrumentation in quality control laboratories plays a vital role for fast processing and analysis of testing samples. Thus, skilled personnel who are trained for handling sophisticated instruments is important aspect in the characterizations. Using quality equipment there is enhancement in quality and minimization of errors in testing of samples, which helps to produce timeline results. Our training module assures hands-on theoretical, practical and conceptual basic on the instruments for thorough understanding of analytical instruments and methods. This training course aims to give practical demonstration on instruments, calibration and method development so the participant can achieve the analytical and interpretative skills which are critical for working in the laboratory. There is a challenge before universities to fulfill the demand of skilled human resources as the education given in academic institutions may not be fully acquainted with needs of the today’s growing industries. We, the academic institutions working under the umbrella of university do not have that much academic flexibility in designing the syllabi of our courses. Hence, in order to cater the requirements of chemical industries and analytical laboratories there is utmost need to design and develop a course which will provide practical knowledge and skills of handling sophisticated instruments to the students.

Department of Chemistry has designed the certificate course on “Sophisticated Analytical Instrument Handling” especially for UG, PG and Research students. This course will provide breakthrough knowledge of instrumentation, handling and applications of the high cost instruments *viz.* FT-IR with ATR attachment, UV-Visible Spectrophotometer with integrating sphere, Potentiostat/Galvanostat electrochemical instrument, Rotary evaporator, Constant temperate bath with chiller for crystal growth.

Eligibility:

Certificate course on “Computing skills and Hands on Training in Analytical Instrumentation”

Graduate, postgraduate or research students having Chemistry or Physics as one of the subjects.

Course Structure and Syllabus

Duration: Six months

Lectures: 1 Lecture & practical per week

Assessment: At the end by a paper consisting of 80 marks (Theory 50% and Practical 50%). It will comprise multiple choice questions (MCQs), small experiment on the use of instrument and short answer questions.

Admission intake: Batch of 15-20 students per year

“Computing skills and Hands on Training in Analytical Instrumentation”

Certificate will be awarded to successful students who will attend at least 80% lectures, practicals and complete the assignments and qualify the MCQ examination.

Course Outcomes Expected:

1. Introduction of Instrumental Analysis

Objectives: Students will be able to-

1. Need of chemical analysis
 2. Methods of chemical analysis
 3. Various methods of instrumental analysis and their appropriateness
 4. Some important applications
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2. FT-IR Spectroscopy :

Aim : To learn principle, theory and practical applications of FT-IR spectroscopy.

Objectives: students will learn

5. Basic principle of infrared spectroscopy
 6. Regions in infra – red band
 7. Modes of vibrations
 8. Fourier transform
 9. Standardization/calibration of the instrument
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10. Instrumentation and how to record the spectrum
 11. Interpretation of spectra and application of FT-IR.
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3. **UV-Visible Spectrophotometry:**

Aim : To study principle, theory and applications of UV-Visible Spectroscopy

Objectives: The student will be able to understand

1. Basic principle, Lambert's – Beer's law
 2. Instrumentation of technique
 3. Standardization/calibration of the instrument
 4. Analysis using calibration and standard addition method
 5. Tabulation and interpretation of results.
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4. **Rotary Evaporator:**

Aim: To separate solvents precisely from different reaction mixtures under normal conditions.

Objectives: After learning this technique students will be able to

1. Understand the operations of technique in order to carry out distillation of various mixtures of solvent/chemicals.
 2. Learn high vacuum separation of different solvents.
 3. Remove/separate solvent from targeted compound.
 4. Applications in research and routine practical work.
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5. **Potentiostat/Galvanostat**

Aim: Thin film deposition

Objectives: After learning this technique students will be able to

1. Understand the use of this technique.
 2. Standardization and optimization of parameters.
 3. Thin-film deposition
 4. Interpretation of results.
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6. **Constant temperature bath with chiller for crystal growth:**

Aim: To permit the formation of one or only a few crystal nuclei, and to provide controlled

conditions so that the continuing growth from the nucleus to the desired size occurs without the nucleation of additional crystal and the formation of a polycrystalline mass.

Objectives: After learning this technique students will be able to know how to grow single crystal

1. Understand the operations of technique in order to start single crystal growth.
 2. Optimization of parameter.
 3. How to prepare semi organic single crystal.
 4. Applications in research and routine practical work.
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7. **Magnetic susceptibility measurements:**

Aim: Accurate measurements of susceptibility to understand diamagnetic and paramagnetic behavior of inorganic compounds

Objectives: After learning this technique students will be able to know how to grow single crystal

1. Understand the operations of technique in order to carry out the susceptibility measurements.
 2. Preparation of sample & calibration.
 3. Measurements & calculations.
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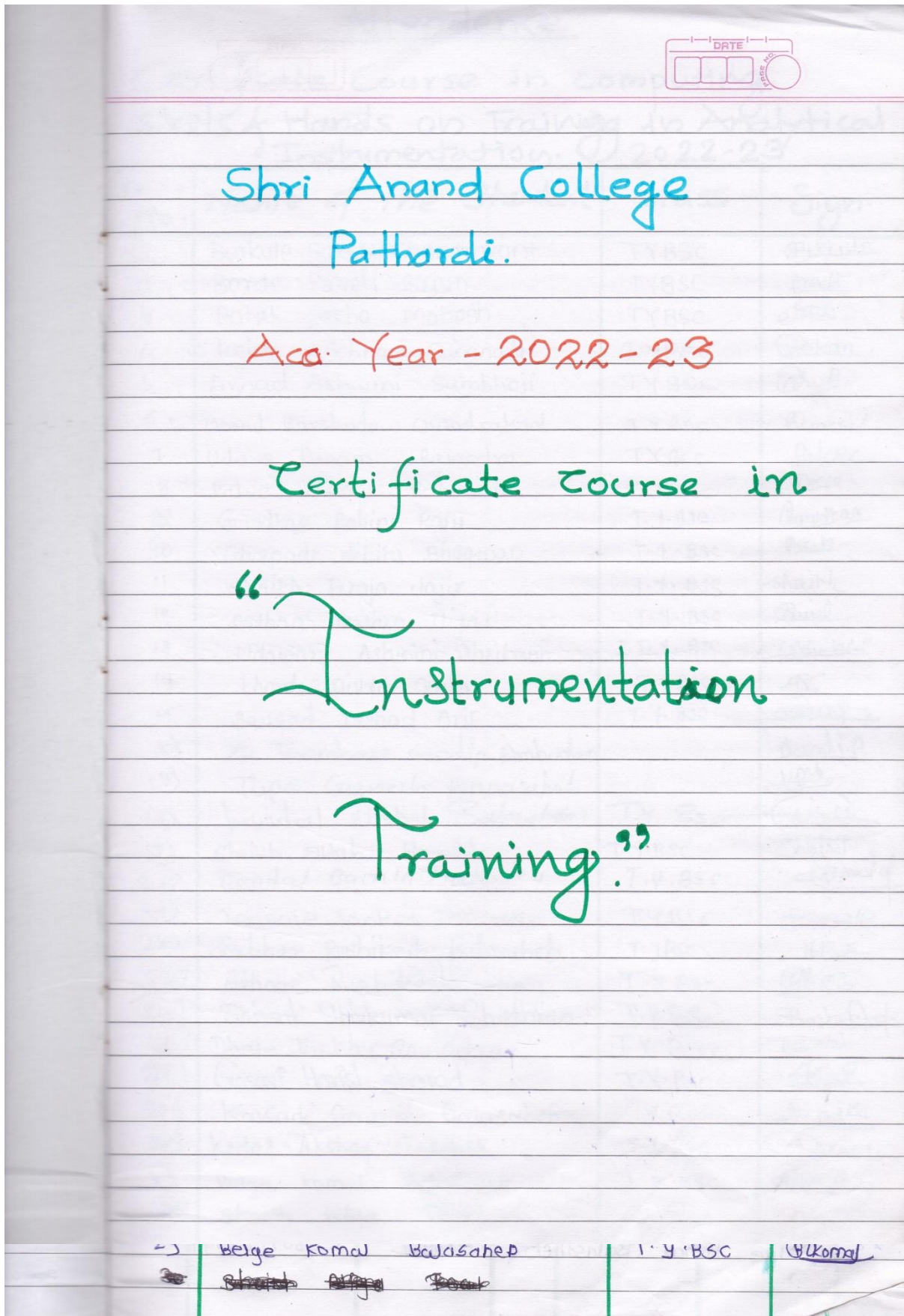
References:

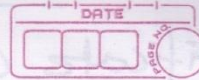
1. Instrumental Methods of Chemical Analysis, Chatwal and Anand.
 2. Principles of IR Spectroscopy, Nakamoto Organic Spectroscopy, LDS Yadav
 3. Analytical Chemistry(J.W) G. D. Christian
 4. Principles of Instrumental Analysis- D. Skoog and D. West
 5. Treatise on Analytical Chemistry; Vol. I to VII I, .M. Kolthoff.
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Shri Anand College Pathardi Dist: Ahmednagar (MS) 414102
CERTIFICATE COURSE IN BASIC INSTRUMENTATION TRAINING
Academic Year 2022-23

Sr. No.	Date	Theory	Practical
01		Need of chemical analysis	---
02		Methods of chemical analysis	---
03		Various methods of instrumental analysis	---
04		Applications	---
05		---	Hands-on training
06		---	Hands-on training
07		---	Hands-on training
08		---	Hands-on training
09		---	Hands-on training
10		---	Hands-on training
11		---	Hands-on training
12		---	Hands-on training
13		14-05-2023	Examination

Attendance Record:





Date - 2/10/2022

Sr	Name of Student	Sign.	Mobile No
1)	Handal Sachin Mahadev		9421740266
2)	Handal Vitthal Balasaheb		7057147829
3)	Gosavi Harish Sharad		8432552626
4)	Tupe Ganesh Annasaheb		8669875912
5)	Sangale Sanket Jalindar		8767966751
6)	Kerkade Saurav Balasaheb		9373660684
7)	Dhale Tushar Ravindra		9146484998
8)	Shaikh Atab Hamid		9075061518
9)	Udawat Ashwini Shrikant		8888415246
10)	Khorde Divya Dinkar		9359763006
11)	Jaybhav Rushikesh Babasaheb		9767669857
12)	Udare Punam Rajendra		9112736605
13)	Merad Harshada Chandrakant		8830412992
14)	Ghospade Nikita Bhagwan		7083505784
15)	Barde Preeti Arjun		8767067510
16)	Bhivkumar Bhivsinh		9375460256
17)	Ganudkar Rohini Raju		9190185239
18)	Pathan Bushra Ilyas		7057586068
19)	Shaikh Firoja Najir		8805025593
20)	Avhad Ashwini Sambhaji		8080867188
21)	Kekan Vaishnavi Rangnath		8600775251
22)	Athore Rushikesh Dilip		8010172149
23)	Pawar Omkar Govind		8329536467
24)	Burkule Sakshi Chandrakant		9511882776
25)	Patel Lekha Mahesh		8308592493
26)	Thombare Sandip Ambadas		9158682805
27)	Kedare Akshay		9422348955
28)	Beige Komal Balasaheb		9307123091

/2022

Date - 09/10/2022

	Name of Student	Sign	Mob-NO.
66	1] Pawar Ankar Govind	Ankar	8329536467
	2] Jaybhav Rushikesh Babasaheb	RJB	9767669854
	3] Kakade Saurav Balasaheb	Sakade	9878660684
2	4] Athare Rushikesh Dilip	Athare	8010172149
	5] Shirsat Shivkumar Sheshrao	Shirsat	9325460252
	6] Tupe Ganesh Annasaheb	Tupe	8669875912
	7] Handal Sachin Mahadev	Handal	9421740266
	8] Thombare sandip Ambadar	Thombare	9158682805
	9] Handal vithal Balasaheb	Handal	7057147829
	10] Gasavi Harish sharda	Gasavi	8432552626
	11] Dhale Tushar Ravindra	Dhale	9146484998
	12] Khozde Divya Dinkar	Khozde	9359768006
	13] Udawant Ashwini shrikant	Udawant	8888415246
	14] Bhande preeti Anjun	Preeti	8767067510
	15] Ganudkar Rohini Raju	Ganudkar	9180185289
6	16] Ghorpade Nikita Bhagwan	Ghorpade	7083505784
	17] Merad Harshada Chandrakant	Merad	8830412992
	18] Ware Punam Rajendra	Ware	9112786605
6.5	19] Kedar Akshay Gokaksh	Kedar	9422348953
13	20] Avhad Ashwini Sambhaji	Avhad	8080857188
4.5	21] Patel Lekha Mahesh	Lekha	8308592493
5	22] Kekan Vaishnavi Rangnath	Kekan	8600775251
7	23] Burkule Sakshi Chandrakant	Burkule	9511852776
2.5	24] Shaikh Aftab Hamid	Shaikh	9075061518
3	25] Shaikh Firoja Najir	Shaikh	8805025593
2.0	26] Pathan Bushra Ilyas	Pathan	7057586068
5	27] Belge Komal Balasaheb	Belge	9307123091

Date - 16/10/2022



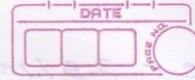
Sr. No.	Name of the Students	Sign.	Mo. no.
1)	Hondal Sachin Mahadev	<i>Sachin</i>	9421790266
2)	Thombare sandip Ambadas	<i>Sandip</i>	9158682805
3)	Sangale Sanket Jalindar	<i>Sangale</i>	8767966751
4)	Patel Lekha Mahesh	<i>Lekha</i>	8308592493
5)	Phaytadek Pooja Anameshwar	<i>Pooja</i>	7498281078
6)	Utare Punam Rajendra	<i>Punam</i>	9112736605
7)	Jaybhav Rushikesh Babasaheb	<i>Rushikesh</i>	9767669854
8)	Kokade Sourav Balasaheb	<i>Sourav</i>	9373660684
9)	Gasavi Harish Shamad	<i>Harish</i>	8432552626
10)	Kedae Akshay Gaeaksh	<i>Akshay</i>	9422398955
11)	Dhale Tushar Ravindra	<i>Tushar</i>	9146484998
12)	Merad Harshada Chandrakant	<i>Harshada</i>	8830412992
13)	Mandal Vitthal Balasaheb	<i>Vitthal</i>	7057147829
14)	Avhad Ashwini Sambhaji	<i>Ashwini</i>	8080867188
15)	Kekan Vaishnavi Rangnath	<i>Vaishnavi</i>	8600775251
16)	Athore Rushikesh Dilip	<i>Rushikesh</i>	8010172149
17)	Velawant Ashwini S.	<i>Ashwini</i>	8888415246
18)	Burkule Sakshi Chandrakant	<i>Sakshi</i>	9511852776
19)	Pathan Bushra Iliyas	<i>Bushra</i>	7057586068
20)	Sangale Sanket Jalindar	<i>Sangale</i>	8767966751
21)	Shaikh Altam Hamid	<i>Altam</i>	9075061518
22)	Shaikh Feroza Najir	<i>Feroza</i>	8805025593
23)	Belge Komal Balasaheb	<i>Komal</i>	9307123091

Date - 23/10/2022



Sl. No.	Name of the students	Sign	MO. NO.
266	1) Thombare sandip Ambudkar	<u>Sandip</u>	9158682805
05	2) Patel Lekha Mahesh	<u>Lekha</u>	8308592493
751	3) Dhaytadak Pooja Anjaneshwar	<u>Pooja</u>	7498 28 107 8
493	4) Utkare Punam Rajendra	<u>Punam</u>	9112796605
078	5) Jaybhav Rushikesh Babasaheb	<u>Jaybhav</u>	9767669857
505	6) Mandel Sachin Mahadev	<u>Sachin</u>	9421740261
854	7) Kerkode Sourav Balasaheb	<u>Sourav</u>	9373660654
084	8) Gosavi Harish Shamad	<u>Harish</u>	8432552626
2626	9) Sangale Sanket Jalindar	<u>Sangale</u>	8767966751
8955	10) Dhale Tushar Ravindra	<u>Tushar</u>	9146484998
998	11) Kedare Akshay Goeksh	<u>Akshay</u>	9422348954
392	12) Merad Harshada Chandrakant	<u>Harshada</u>	8830412992
7829	13) Mandel Vitthal Balasaheb	<u>Vitthal</u>	7057147829
7188	14) Avhad Ashwini Sambhaji	<u>Ashwini</u>	8080867188
251	15) Kekan Vaishnavi Rangnath	<u>Kekan</u>	8600775251
149	16) Atharve Rushikesh Dilip	<u>Atharve</u>	8010172149
246	17) Valawant Ashwini S.	<u>Ashwini</u>	8888415246
776	18) Buzkule Sakshi Chandrakant	<u>Buzkule</u>	9311852776
068	19) Pathan Bushra Ilyas	<u>Bushra</u>	7057586068
66751	20) Shaikh Altam Hamid	<u>Zhaizor</u>	9075061578
1518	21) Shaikh Firoja Najir	<u>Shaikh</u>	8805025593
593	22) Belge Komal Balasaheb	<u>Bukomal</u>	9307123091

20/10/2022



Sr. No.	Name of the students	Sign	Mo. No.
1)	Jangale Sanket Jalindar	Jangale	8767968751
2)	Merad Harshada Chandrakant	Bemerad	8830412992
3)	Dhayateak Pooja Dnyaneshwar	Dhayateak	7498281078
4)	Patel Lekha Mahesh	Lekha	8308592493
5)	Udare Punam Rajendra	Pudare	9112736605
6)	Jatbhay Rushikesh Babasaheb	Jat	9767669859
7)	Handal Sachin Mahadev	Handal	9421760268
8)	Kokade Sourav Balasaheb	Kokade	9373660684
9)	Gosavi Harish Sharad	Gosavi	8432552626
10)	Thombare Sandip Ambadar	Sandip	9158682805
11)	Dhale Tushar Ravindra	Dhale	9146484998
12)	Kedae Akshay Gopaksh	Kedae	9422348954
13)	Handal Vitthal Balasaheb	Handal	9057147829
14)	Avhad Ashwini Sambhaji	Avhad	8080867188
15)	kekan Vaishnavi Rangnath	kekan	8600775251
16)	Athare Rushikesh Dilip	Athare	8010172149
17)	Pathan Bushra Ilyas	Pathan	7057386068
18)	Burkule Sakshi Chandrakant	Burkule	9511852976
19)	Udewant Ashwini S.	Udewant	8888415248
20)	Shaikh Altam Hamid	Shaikh	9075061578
21)	Kedae Akshay Gopaksh	Kedae	9422348954
22)	Shaikh Firoza Najir	Shaikh	8805025593
23)	Belge Komal Balasaheb	Belge	9307123091

6/11/2022



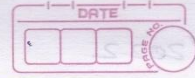
Sr. No.	Name of the students	Sign.	Mo. No.
751	1] Patel lekha Mahesh	<u>lekha</u>	8308592493
92	2] Dhaytaalak Raja Dnyaneshwar	<u>Dhaytaalak</u>	7498281078
078	3] Udare Punam Rajendra	<u>Pudare</u>	9112736605
493	4] Jaybhav Rushikesh Babasaheb	<u>RJB</u>	9767669854
605	5] Handal Sachin Mahadev	<u>Sachin</u>	9421760266
254	6] Korkade Saurav Balasaheb	<u>Saurav</u>	9373660684
268	7] Gosavi Harish Sharad	<u>Harish</u>	8432552626
84	8] Thombare sandip Ambadev	<u>Sandip</u>	9158682805
26	9] Sangale Sanket Jalindar	<u>Sangale</u>	8767966751
5	10] Dhole Tushar Ravindra	<u>Tushar</u>	9146484998
98	11] Kedare Akshay Gopaksh	<u>Gaksh</u>	9422398954
54	12] Merad Harshada Chandrakant	<u>Harshada</u>	8830412992
29	13] Handal vitthal Balasaheb	<u>Handal</u>	7057147829
88	14] Avhad Ashwini Sambhaji	<u>Ashwini</u>	8080867188
525L	15] Kekon Vaishnavi Rangnath	<u>Kekon</u>	860677525L
49	16] Athare Rushikesh Dilip	<u>Athare</u>	8010172149
68	17] Pathan Bushra Iliyas	<u>Bushra</u>	7057586068
076	18] Velaveint Ashwini S.	<u>Ashwini</u>	9147111111
1	19] Burekule Sakshi Chandrakant	<u>Burekule</u>	9511852776
8	20] Shaikh Altam Hamid	<u>Shaikh</u>	9075061518
5	21] Shaikh Firoja Najir	<u>Shaikh</u>	8805025593
93	22] Belge Komal Balasaheb	<u>Belge</u>	9307123091
91			

13/11/2022



Sr. No.	Name of the students	Sign.	mob. no.
1)	Dhayதாக Pooja Dnyaneshwar		7498281078
2)	Patel Lekha Mahesh		8308592493
3)	Udare Punam Rajendra		9112736605
4)	Handal Sachin Mahesh		9421740268
5)	Karkade Saurav Balasaheb		9373660684
6)	Thombure sandipambadas		9158682805
7)	Gosavi Harish shorad		8432552626
8)	Dhale Tushar Ravindra		9146484988
9)	Sangale Sanket Jalinda		8767966751
10)	Kedae Akshay Gofaksh		9422398959
11)	Merad Harshada chandrakant		8830412992
12)	Handal Vitthal Balasaheb		7057147829
13)	Avhad Ashwini Sambhaji		8080867188
14)	Kekan Vaishnavi Rangnath		8600775251
15)	Sayyad Irshad Arif		7820919576
16)	Athare Rushikesh Dilip		8010172149
17)	Udewant Ashwini S.		
18)	Burkule Sakshi C.		9511852776
19)	Pathan Bushra Iliyas		7057586068
20)	Shaikh Firoja Najir		8805025593
21)	Belge Komal Balasaheb		9307123091

20/11/2022



Sl. no	Name of the Student	Class	Signature
078	1) Handal vittal Balasahab	T.Y. BSc	
2493	2) Thombare sandip Ambadas	T.Y. BSc	
605	3) Handal Sankin Mahadev	T.Y. BSc	
668	4) Gasavi Harish Sharad	T.Y. BSc	
684	5) Kakade Saurav Balasahab	T.Y. BSc	
805	6) Athare Rushikesh Dilip	T.Y. BSc	
2626	7) Dhale Tushar Ravindra	T.Y. BSc	
898	8) Burkule Sakshi C	T.Y. BSc	
51	9) Sayyad Iqshad A.	T.Y. chem.	
8989	10) Merad Harshada C.	T.Y. chem.	
92	11) Udare Punam R.	T.Y. chem.	
829	12) Patel Lekha Mahesh	T.Y. BSc	
88	13) Udawant Ashwini Shrikant	T.Y. BSc	
5251	14) Pathan Bushra Iliyaz	T.Y. BSc	
76.	15) Kekan Vaishnavi Rangnath	T.Y. BSc	
49	16) Sangale Sanket Jalindar	T.Y. BSc	
	17) Kedare Akshay Gopaksh	T.Y. BSc	
776.	18) Shaikh Firoja Najir	T.Y. BSc	
068	19) Selge Kemal Balasahab	T.Y. BSc	
93			
9)			

27/11/2022



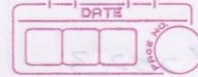
Sr. No	Name of the student	Class	Signature
1)	Hondal Sachin Mahadev	T.Y. BSC	<u>Sachin</u>
2)	Atbore Rushikesh Dilip	T.Y. BSC	<u>Rushikesh</u>
3)	thombare sandip Ambadas	T.Y. BSC	<u>Sandip</u>
4)	Karkade Saurav Balasaheb	T.Y. BSC	<u>Saurav</u>
5)	Dhale Tushar Ravindra	T.Y. BSC	<u>Tushar</u>
6)	Hondal vithal Balasaheb	T.Y. BSC	<u>Vithal</u>
7)	Sayyad Iqbal Arif	T.Y. chem	<u>Iqbal</u>
8)	Burkule sakshi Chandrakant	T.Y. PHY	<u>Burkule</u>
9)	Pu. udare Punam R.	T.Y. chem	<u>Pudase</u>
10)	Gosavi Harish Sharad	T.Y. BSC	<u>Harish</u>
11)	menad Harshada C.	T.Y. chem	<u>Harshada</u>
12)	Jaybhav Rushikesh Babasaheb	T.Y. chem	<u>Jaybhav</u>
13)	Pawar Onkar Govind	T.Y. chem	<u>Onkar</u>
14)	Patel Lekha Mahesh	T.Y. Phy	<u>Lekha</u>
15)	Vedwant Ashwini Shankant	T.Y. Phy	<u>Vedwant</u>
16)	Pathan Bushra Iliyas	T.Y. BSC	<u>Bushra</u>
17)	Kokan Vaishnavi Rongnath	T.Y. BSC	<u>Kokan</u>
18)	Udare Punam Rajendra	T.Y. BSC	<u>Pudase</u>
19)	Jangale Sanket Jalindar	T.Y. BSC	<u>Jangale</u>
20)	Shaikh Altab Hamid	T.Y. BSC	<u>Shahid</u>
21)	Kedae Akshay Goeaksh	T.Y. BSC	<u>Akshay</u>
22)	Shaikh Firoja Najir	T.Y. BSC	<u>Shaikh</u>
23)	Bedge Komal Balasaheb	T.Y. BSC	<u>BKomal</u>

1/01/2023



Sr. no	name of the student	class	Signature
1)	Sayyad Irshad Arif	T.Y.BSC	Irshad
2)	Dhayte Dak Pooja Dnyameshwar	T.Y.BSC	Dhayte Dak
3)	Kekan Vaishnavi Rangnath	T.Y.BSC	Kekan
3)	Avhad Ashwini Sambhaji	T.Y.BSC	Avhad
4)	Udare Punam Rajendra	T.Y.BSC	Udare
5)	Burkule Sakshi Chandrakant	T.Y.BSC	Burkule
6)	Pathan Bushra Ilyas	T.Y.BSC	Pathan
7)	Udawat Ashwini Shrikant	T.Y.BSC	Udawat
8)	Khosde Divya Dinkar	T.Y.BSC	Khosde
9)	Jaybhav Rushikesh Babasaheb	T.Y.BSC	Jaybhav
10)	Dhale Tushar Ravindra	T.Y.BSC	Dhale
11)	Gosavi Harish Sharad	T.Y.BSC	Gosavi
12)	Pawar Ankar Govind	T.Y.BSC	Pawar
13)	Athare Rushikesh Dilip	T.Y.BSC	Athare
14)	Kakade Souvar Balasaheb	T.Y.BSC	Kakade
15)	Sangale Janket Jalindar	T.Y.BSC	Sangale
16)	Shaikh Altaf Hamid	T.Y.BSC	Shaikh
17)	Kedare Akshay Gopaksh	T.Y.BSC	Kedare
18)	Shaikh Firoza Najir	T.Y.BSC	Shaikh
19)	Merad Harshada Chandrakant	T.Y.BSC	Merad
20)	Belge Komal Balasaheb	T.Y.BSC	Belge

08/01/2023



Sl. No	Name of the student	Class	Signature	Sl. No
1)	Arhad Ashwini Sambhaji	T.Y.BSC	Arhad	
2)	Kekan Vaishnavi Rangnath	T.Y.BSC	Kekan	
3)	Sayyad Irshad Arif	T.Y.BSC	Irshad	
4)	Udare Purnam Rajendra	T.Y.BSC	Udare	
5)	Pathan Bushra Ilyas	T.Y.BSC	Bushra	
6)	Dhaytedak Pooja Dnyaneshwar	T.Y.BSC	Dhaytedak	
7)	Burkute Sakshi Chandrakant	T.Y.BSC	Burkute	
8)	Khosde Diya Dinkar	T.Y.BSC	Khosde	
9)	Volawant Ashwini Shankant	T.Y.BSC	Volawant	
10)	Jaybhare Rushikesh Babasaheb	T.Y.BSC	Jaybhare	
11)	Dhale Tushar Ravindra	T.Y.BSC	Dhale	
12)	Casavi Harish Shiroad	T.Y.BSC	Casavi	
13)	Pawar Onkar Govind	T.Y.BSC	Pawar	
14)	Sangale Saniket Jalindar	T.Y.BSC	Sangale	
15)	Athare Rushikesh Dilip	T.Y.BSC	Athare	
16)	Kerkade Saurav Balasaheb	T.Y.BSC	Kerkade	
17)	Kedare Akshay Gopaksh	T.Y.BSC	Kedare	
18)	Shaikh Altaf Hamid	T.Y.BSC	Shaikh	
19)	Shaikh Firoja Najir	T.Y.BSC	Shaikh	
20)	Merad Harshada Chandrakant	T.Y.BSC	Merad	
21)	Belge Komal Balasaheb	T.Y.BSC	Belge	

15/01/2023



Sl.	Name of the Student	Class	Signature
1)	Dhaytadak Pooja Dnyameshwar	T.Y.BSc	@Dhaytadak
	Merad Harshada Chandrakant	T.Y.BSc	Merad
2)	Avhad Ashwini Sambhaji	T.Y.BSc	Avhad
	Kekan Vaishnavi Rangnath	T.Y.BSc	Kekan
3)	Sayyad Irshad Arif	T.Y.BSc	Irshad
	Khosde Diya Dinkar	T.Y.BSc	Diya
	Udare Punam Rajendra	T.Y.BSc	Udare
	Pathan Bushra Ilyas	T.Y.BSc	Bushra
	Buekule Sakshi Chandrakant	T.Y.BSc	Buekule
	Udewant Ashwini Shrikant	T.Y.BSc	Udewant
	Jaybhair Rushikesh Babasaheb	T.Y.BSc	Jaybhair
	Pawar Onkar Govind	T.Y.BSc	Onkar
	Athare Rushikesh Dilip	T.Y.BSc	Athare
	Dhale Tushar Ravindra	T.Y.BSc	Dhale
	Cosavi Harish Sharad	T.Y.BSc	Harish
	Karade Saurav Balasaheb	T.Y.BSc	Karade
	Kedare Akshay Gopaksh	T.Y.BSc	Kedare
	Sangale Sankeet Jalindar	T.Y.BSc	Sangale
	Shaikh Attab Hamid	T.Y.BSc	Shaikh
	Shaikh Firoja Najir	T.Y.BSc	Shaikh
	Belge Komal Balasaheb	T.Y.BSc	Belge

22/01/2023



Sl. No.	Name of the student	Rolls	Signature
	Kekan Vaishnavi Rangnath	T.Y.BSC	Retan
	Sayyad Irshad Arif	T.Y.BSC	Irshad
	Pathan Bushra Ilyas	T.Y.BSC	Pathan
	Drayadak Pooja Dnyaneshwar	T.Y.BSC	Drayadak
	Burkule Sakshi Chandrakant	TYBSC	Burkule
	Arhad Ashwini Sambhaji	T.Y.B.Sc	Arhad
	Udare Purnam Rajendra	T.Y.BSC	Udare
	Udawat Ashwini Shrikant	T.Y. Bsc	Udawat
	Khosde Diya Dinkar	T.Y. BSC.	Khosde
	Tarbar Rushikesh Babasaheb	T.Y.bsc	Tarbar
	Dhale Tushar Ravindra	TY BSC	Dhale
	Gosavi Harish Shasad	T.Y.BSC	Gosavi
	Pawar Ankar Govind	T.Y.BSC	Pawar
	Athare Rushikesh Dilip	T.Y.Bsc	Athare
	Sangale Sanket Jalindar	T.Y.BSC	Sangale
	Karode Saurav Balasaheb	T.Y.BSC	Karode
	Kedae Akshay Goaksh	T.Y.BSC	Kedae
	Shaikh Firoja Najir	T.Y. BSC	Shaikh
	Merad Harshada Chandrakant	T.Y.BSC	Merad
	Belge Komal Balasaheb	T.Y.BS	Belge

23/01/2023



Roll No.	Name of the Student	Class	Signature
	Merad Harshada Chandrakant	T.Y. BSc	Merad
	Udare Purnam Rajendra	T.Y. BSc	Udare
	Pheytaadak Pooga Prayameshwar	T.Y. BSc	Pheytaadak
	Kekan Vaishnavi Rangnath	T.Y. BSc	Kekan
	Sayyad Irshad Arif	T.Y. BSc	Irshad
	Pathan Bushra Iliyas	T.Y. BSc	Bushra
	Avhad Ashwini Sambhaji	T.Y. BSc	Avhad
	Burkule Sakshi Chandrakant	T.Y. BSc	Burkule
	Pawar Anker Gevind	T.Y. BSc	Anker
	Diya Dinkar Khosde	T.Y. BSc	Diya
	Udawat Ashwini Shrikant	T.Y. BSc	Udawat
	Jaybhav Rushikesh Babasaheb	T.Y. BSc	Jaybhav
	Athare Rushikesh Dilip	T.Y. BSc	Athare
	Dhale Tushar Ravindra	T.Y. BSc	Tushar
	Gosavi Harish Sharad	T.Y. BSc	Harish
	Karade Saurav Balasaheb	T.Y. BSc	Saurav
	Kedar Akshay Gopaksh	T.Y. BSc	Akshay
	Jangale Janket Jalindar	T.Y. BSc	Jangale
	Shaikh Altam Hamid	T.Y. BSc	Shaikh
	Shaikh Firoja Najir	T.Y. BSc	Shaikh
	Belge Komal Balasaheb	T.Y. BSc	Komal

5/02/2023



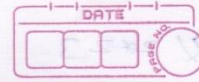
Sr. No	Name of the student	class	Sig.
	Merad Harshada Chandrakant	T.Y. BSc	Merad
	Athore Rushikesh Dilip	T.Y. BSc	Athore
	Sayyad Irshad Arif	T.Y. BSc	Irshad
	Udare Punam Rajendra	T.Y. BSc	Udare
	Avhad Ashwini Sambhaji	T.Y. BSc	Avhad
	Khosde Diya Dhakes	T.Y. BSc	Khosde
	Chaytealok Pooja Anymethwar	T.Y. BSc	Chaytealok
	Pathan Bushra Ilyas	T.Y. BSc	Pathan
	Kekan Vaishnavi Rangnath	T.Y. BSc	Kekan
	Burkule Sakshi Chandrakant	T.Y. BSc	Burkule
	Udawat Ashwini Shrikant	T.Y. BSc	Udawat
	Jybhav Rushikesh Babasaheb	T.Y. BSc	Jybhav
	Gosavi Harish Sharad	T.Y. BSc	Gosavi
	Dhale Tushar Ravindra	T.Y. BSc	Dhale
	Pawar Onkar Govind	T.Y. BSc	Pawar
	Karkade Sawan Balasaheb	T.Y. BSc	Karkade
	Kedare Akshay Goaksh	T.Y. BSc	Kedare
	Shaikh Firoja Najir	T.Y. BSc	Shaikh
	Belge Komal Balasaheb	T.Y. BSc	Belge

12/02/2023



Sr. No	Name of the student	Class	Signature
	Pathan Bushra Iliyas	T.Y.BSc	Bushra
	Sayyad Irshad ARIF	T.Y.BSc	Irshad
	Avhad Ashwini Sambhaji	T.Y.BSc	Ashwini
	Burkule Sakshi Chandrakant	T.Y.BSc	Burkule
	Udare Anam Rajendra	T.Y.BSc	Anam
	Onaytedak Pooja. Dnyaneshwar	T.Y.BSc	Onaytedak
	Kekan Vaishnavi Rongnath	T.Y.BSc	Kekan
	Udewant Ashwini Shrikant	T.Y.BSc	Udewant
	Pawar Onkar Govind	T.Y.BSc	Pawar
	Dhale Tushar Ravindra	T.Y.BSc	Dhale
	Khosde Divya Dinkar	T.Y.BSc	Khosde
	Jaybhav Rushikesh Babasaheb	T.Y.BSc	Jaybhav
	Gosavi Hemish Sharad	T.Y.BSc	Gosavi
	Athore Rushikesh Dilip	T.Y.BSc	Athore
	Karkade Sourav Balasaheb	T.Y.BSc	Karkade
	Kedare Akshay Gopesh	T.Y.BSc	Kedare
	Sangale Janket Jalindar	T.Y.BSc	Sangale
	Shaikh Firoza Najir	T.Y.BSc	Shaikh
	Merad Harshada Chandrakant	T.Y.BSc	Merad
	Belge Komal Balasaheb	T.Y.BSc	Belge

19/07/2023



2

Sr. No	Name of the student	CLASS	Signature	Sr. No
	Dhanytejadak Pooja Dnyaneshwar	T.Y.BSC	<u>Dhanytejadak</u>	
	Pathan Bushra Ilyas	T.Y.BSC	<u>Bushra</u>	
	Kekan Vaishnavi Rangnath	T.Y.BSC	<u>Rekan</u>	
	Avhad Ashwini Sambhaji	T.Y.BSC	<u>Ashwini</u>	
	Khosle Diya Dhikar	T.Y.BSC	<u>Diya</u>	
	Valawant Ashwini shrikant	T.Y.BSC	<u>Ashwini</u>	
	Sayyad Irshad Arif	T.Y.BSC	<u>Irshad</u>	
	Udare Punam Rajendra	T.Y.BSC	<u>Pudare</u>	
	Burkule Sakshi Chandrakant	T.Y.BSC	<u>Burkule</u>	
	Jaybhara Kushikesh Bubasaheb	T.Y.BSC	<u>KB</u>	
	Gosavi Harish Sharad	T.Y.BSC	<u>Harish</u>	
	Dhale Tushar Ravindra	T.Y.BSC	<u>Tushar</u>	
	Pawar Ankar Govind	T.Y.BSC	<u>Ankar</u>	
	Athore Rushikesh Dilip	T.Y.BSC	<u>Rushikesh</u>	
	Shaikh Altam Hamid	T.Y.BSC	<u>Shaikh</u>	
	Sangale Sanket Jaiindar	T.Y.BSC	<u>Sangale</u>	
	Karade Sawrav Balasaheb	T.Y.BSC	<u>Karade</u>	
	Kedare Akshay Goeksh	T.Y.BSC	<u>Kedare</u>	
	Shaikh Firoja Najir	T.Y.BSC	<u>Shaikh</u>	
	Merad Harshada Chandrakant	T.Y.BSC	<u>Merad</u>	
	Belge Komal Balasaheb	T.Y.BSC	<u>Belge</u>	

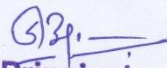
26/02/2023



Sl. No.	Name of the students	class	Signature
	Athore Rushikesh Dilip	T.Y. Bsc	
	Avhad Ashwini Sambhaji	T.Y. B.sc	
	Udare Punam Rajendra	T.Y. Bsc	
	Sayyad Irshad Arif	T.Y. BSC	
	Pathan Bushra Ilyas	T.Y. BSC	
	Burkwe Sakshi Chandrakant	T.Y. BSC	
	Kekan Vaishnavi Rangnath	T.Y. BSC	
	Dhyataalak Pooja Dnyaneshwar	T.Y. B.S	
	Udewant Ashwini shri Kant	T.Y. BSC	
	Jaybhav Rushikesh Babasaheb	T.Y. bsc	
	Khosde Diya Dinkar	T.Y. BSC	
	Gosavi Harish Shamad	T.Y. BSC	
	Dhale Tushar Ravindra	T.Y. BSC	
	Pawar Onkar Govind	T.Y. BSC	
	Kakade Sourav Bellasabeb	T.Y. BSC	
	Shaikh Aftab Hamid	T.Y. BSC	
	Kedar Akshay Gokaksh	T.Y. Bsc	
	Sangale Sanket Jalindar	T.Y. BSC	
	Shaikh Firoja Najir	T.Y. BSC	
	Merad Harshada Chandrakant	T.Y. BSC	
	Belge Komal Balasabeb	T.Y. BSC	

List of qualified students in certificate course in Computing Skills and Hands on Training in Analytical Instrumentation (Date of examination: 14/05/2023, Time: 9 am to 10 am)

Name of the Student:	Username	Class & Subject:	Total score
Onkar Govind Pawar	omkarpawar8329@gmail.com	T.Y.B.Sc	32.00 / 40
Shaikh Firoja Najir	firojashaikh2021@shrianandcollege.com	T.Y.B.Sc	34.00 / 40
Ganesh Annasaheb Tupe	gtupe50@gmail.com	T.Y.B.Sc	32.00 / 40
Pathan Bushra Iliyas	bushrapathan2210@gmail.com	T.Y.B.Sc	36.00 / 40
Sakshi Burkule	sak2323bur@gmail.com	T.Y.B.Sc	36.00 / 40
Dhale Tushar Ravindra	tushardhale2021@shrianandcollege.com	T.Y.B.Sc	32.00 / 40
Gosavi Harish Sharad	harishgosavi2020@gmail.com	T.Y.B.Sc	28.00 / 40
Sayyad Irshad Arif	fakirsunna@gmail.com	T.Y.B.Sc	34.00 / 40
Sangale Sanket Jalindar	sanketsangale9@gmail.com	T.Y.B.Sc	28.00 / 40
Athare Rushikesh Dilip	atharerushi2149@gmail.com	T.Y.B.Sc	30.00 / 40
Jaybhar Rushikesh Babasaheb	rushikeshjaybhar@gmail.com	T.Y.B.Sc	30.00 / 40
Ashwini Sambhaji Avhad	asavhad2002@gmail.com	T.Y.B.Sc	34.00 / 40
Komal Balasaheb Belge	komalbelge313@gmail.com	T.Y.B.Sc	36.00 / 40
Kedar Akshay Goraksh	akshaykedar2003@gmail.com	T.Y.B.Sc	30.00 / 40
Ashwini Sambhaji Avhad	asavhad2002@gmail.com	T.Y.B.Sc	34.00 / 40
Garudkar Rohini Raju	garudkarrohini0170@gmail.com	T.Y.B.Sc	28.00 / 40
Akshay Goraksh Kedar	akshaykedar2003@gmail.com	T.Y.B.Sc	30.00 / 40
Khorde Divya Dinkar	divyakhorde2002@gmail.com	T.Y.B.Sc	34.00 / 40
Barde Preeti Arjun	preetibarde69@gmail.com	T.Y.B.Sc	36.00 / 40
Ghorpade Nikita Bhagwan	nikitaghorpade172@gmail.com	T.Y.B.Sc	30.00 / 40
Shirsat Shivkumar Sheshrao	shivkumarshirsat2025@gmail.com	T.Y.B.Sc	28.00 / 40
Punam Rajendra Udare	poonamudare25@gmail.com	T.Y.B.Sc	26.00 / 40
Dhaytadak Pooja Dnyaneshwar	poojadhayatadak2021@shrianandcollege.com	T.Y.B.Sc	36.00 / 40
Merad Harshada Chandrakant	meradharshada@gmail.com	T.Y.B.Sc	30.00 / 40
Saurav Balasaheb Kakade	sauravkakade238@gmail.com	T.Y.B.Sc	22.00 / 40
Thombare Sandip Ambadas	thombaresandip59@gmail.com	T.Y.B.Sc	20.00 / 40
Satpute Vijayshri Bandu	satputevijayshri25@gmail.com	T.Y.B.Sc	30.00 / 40
Handal Sachin Mahadev	handalsachin22@gmail.com	T.Y.B.Sc	30.00 / 40
Handal Vitthal Balasaheb	handalvitthal121314@gmail.com	T.Y.B.Sc	25.00 / 40

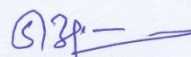

Principal
Shri Anand College
Pathardi, Dist.A.Nagar

Certificate course on "Computing skills and Hands on Training in Analytical Instrumentation"

Certificate course on "Computing skills and Hands on Training in Analytical Instrumentation"

Total Score of Theory and practical

Name of the Student:	Class & Subject:	Exam score	Practical score	Total
Onkar Govind Pawar	T.Y.B.Sc	32.00 / 40	30.00/40	62.00/80
Shaikh Firoja Najir	T.Y.B.Sc	34.00 / 40	35.00/40	69.00/80
Ganesh Annasaheb Tupe	T.Y.B.Sc	32.00 / 40	30.00/40	62.00/80
Pathan Bushra Iliyas	T.Y.B.Sc	36.00 / 40	35.00/40	71.00/80
Sakshi Burkule	T.Y.B.Sc	36.00 / 40	35.00/40	71.00/80
Dhale Tushar Ravindra	T.Y.B.Sc	32.00 / 40	33.00/40	65.00/80
Gosavi Harish Sharad	T.Y.B.Sc	28.00 / 40	32.00/40	60.00/80
Sayyad Irshad Arif	T.Y.B.Sc	34.00 / 40	32.00/40	66.00/80
Sangale Sanket Jalindar	T.Y.B.Sc	28.00 / 40	30.00/40	58.00/80
Athare Rushikesh Dilip	T.Y.B.Sc	30.00 / 40	31.00/40	61.00/80
Jaybhar Rushikesh Babasaheb	T.Y.B.Sc	30.00 / 40	30.00/40	60.00/80
Ashwini Sambhaji Avhad	T.Y.B.Sc	34.00 / 40	33.00/40	67.00/80
Komal Balasaheb Belge	T.Y.B.Sc	36.00 / 40	34.00/40	70.00/80
Kedar Akshay Goraksh	T.Y.B.Sc	30.00 / 40	35.00/40	65.00/80
Ashwini Sambhaji Avhad	T.Y.B.Sc	34.00 / 40	34.00/40	68.00/80
Garudkar Rohini Raju	T.Y.B.Sc	28.00 / 40	35.00/40	63.00/80
Akshay Goraksh Kedar	T.Y.B.Sc	30.00 / 40	35.00/40	65.00/80
Khorde Divya Dinkar	T.Y.B.Sc	34.00 / 40	35.00/40	69.00/80
Barde Preeti Arjun	T.Y.B.Sc	36.00 / 40	30.00/40	66.00/80
Ghorpade Nikita Bhagwan	T.Y.B.Sc	30.00 / 40	34.00/40	64.00/80
Shirsat Shivkumar Sheshrao	T.Y.B.Sc	28.00 / 40	33.00/40	61.00/80
Punam Rajendra Udare	T.Y.B.Sc	26.00 / 40	33.00/40	59.00/80
Dhaytadak Pooja Dnyaneshwar	T.Y.B.Sc	36.00 / 40	35.00/40	71.00/80
Merad Harshada Chandrakant	T.Y.B.Sc	30.00 / 40	32.00/40	62.00/80
Saurav Balasaheb Kakade	T.Y.B.Sc	22.00 / 40	30.00/40	52.00/80
Thombare Sandip Ambadas	T.Y.B.Sc	20.00 / 40	30.00/40	50.00/80
Satpute Vijayshri Bandu	T.Y.B.Sc	30.00 / 40	31.00/40	61.00/80
Handal Sachin Mahadev	T.Y.B.Sc	30.00 / 40	30.00/40	60.00/80
Handal Vitthal Balasaheb	T.Y.B.Sc	25.00 / 40	30.00/40	55.00/80


Principal
Shri Anand College
Pathardi, Dist.A.Nagar

Certificate course on "Computing skills and Hands on Training in Analytical Instrumentation"

Certificate course on "Computing skills and Hands on Training in Analytical Instrumentation"

શ્રી ટિલક જાન ધ્યાન પ્રસારક મંડળ

Shri Tilok Jain Dhyam Prasarak Mandal


Shri Anand College

Tal: Pathardi, Dist: Ahmednagr, (MS), Pin:414102

Certificate of Completion

This is to certify that Mr./Miss. Burkule Saksbi Chandrakant
has successfully completed CDC approved career oriented certificate course in
Computing skills and Hands on Training in Analytical Instrumentation during
the academic year 2022-2023 organised by Department of Chemistry, Shri Anand
College, Pathardi.


Prof. Dr. Anil Gambhire
Course Co-ordinator


Dr. Pratik Nagawade
Co-ordinator, IQAC


Dr. Sheshrao Pawar
Principal

॥ पढमं णाणं तओ दया ॥

Shri Tilok Jain Dnyan Prasarak Mandal's

Shri Anand College


Tal: Pathardi, Dist: Ahmednagr, (MS), Pin:414102


Certificate of Completion

This is to certify that Mr./Miss. Sayyad Irshad Arif

has successfully completed CDC approved career oriented certificate course in Computing skills and Hands on Training in Analytical Instrumentation during thr academic year 20²² - 20²³ organied by Department of Chemistry, Shri Anand College, Pathardi.


Prof. Dr. Anil Gambhire
Course Co-ordinator


Dr. Pratik Nagawade
Co-ordinator, IQAC


Dr. Sheshrao Pawar
Principal

॥ पढमं पाणं तओ दया ॥

Shri Tilok Jain Dnyan Prasarak Mandal's

Shri Anand College

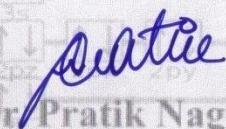
Tal: Pathardi, Dist: Ahmednagr, (MS), Pin:414102

Certificate of Completion

This is to certify that Mr./Miss. Onkar Govind Pawar

has successfully completed CDC approved career oriented certificate course in Computing skills and Hands on Training in Analytical Instrumentation during thr academic year 20²² - 20²³ organied by Department of Chemistry, Shri Anand College, Pathardi.


Prof. Dr. Anil Gambhire
Course Co-ordinator


Dr. Pratik Nagawade
Co-ordinator, IQAC


Dr. Sheshrao Pawar
Principal

॥ पढमं षाणं तओ दवो ॥

Shri Tilok Jain Dnyan Prasarak Mandal's


Shri Anand College


Tal: Pathardi, Dist: Ahmednagr, (MS), Pin:414102

Certificate of Completion

This is to certify that Mr./Miss. Ganesh Annasaheb Tupe

has successfully completed CDC approved career oriented certificate course in Computing skills and Hands on Training in Analytical Instrumentation during thr academic year 20~~22~~²³ - 20~~23~~²³ organied by Department of Chemistry, Shri Anand College, Pathardi.


Prof. Dr. Anil Gambhire
Course Co-ordinator


Dr. Pratik Nagawade
Co-ordinator, IQAC


Dr. Sheshrao Pawar
Principal

॥ पदमं पाणं तओ दया ॥


Shri Tilok Jain Dnyan Prasarak Mandal's

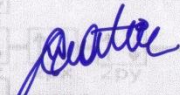
Shri Anand College

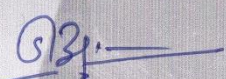
Tal: Pathardi, Dist: Ahmednagr, (MS), Pin:414102

Certificate of Completion

This is to certify that Mr./Miss. Kedar Akshay Govakash
has successfully completed CDC approved career oriented certificate course in
Computing skills and Hands on Training in Analytical Instrumentation during
the academic year 2022-2023 organised by Department of Chemistry, Shri Anand
College, Pathardi.


Prof. Dr. Anil Gambhire
Course Co-ordinator


Dr. Pratik Nagawade
Co-ordinator, IQAC


Dr. Sheshrao Pawar
Principal

Glimpses of Certificate course on “Computing skills and Hands on Training in Analytical Instrumentation”

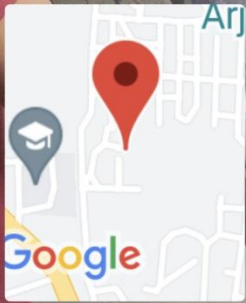


Handling of analytical equipments by the college students





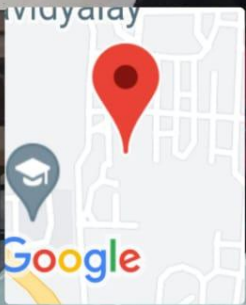
GPS Map Camera



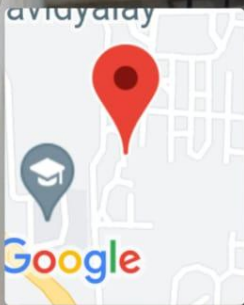
Pathardi, Maharashtra, India
55J9+FFM, Pathardi, Maharashtra 414102, India
Lat 19.180952°
Long 75.168558°
02/10/22 09:47 AM GMT +05:30



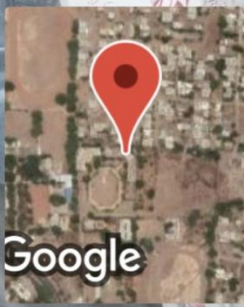
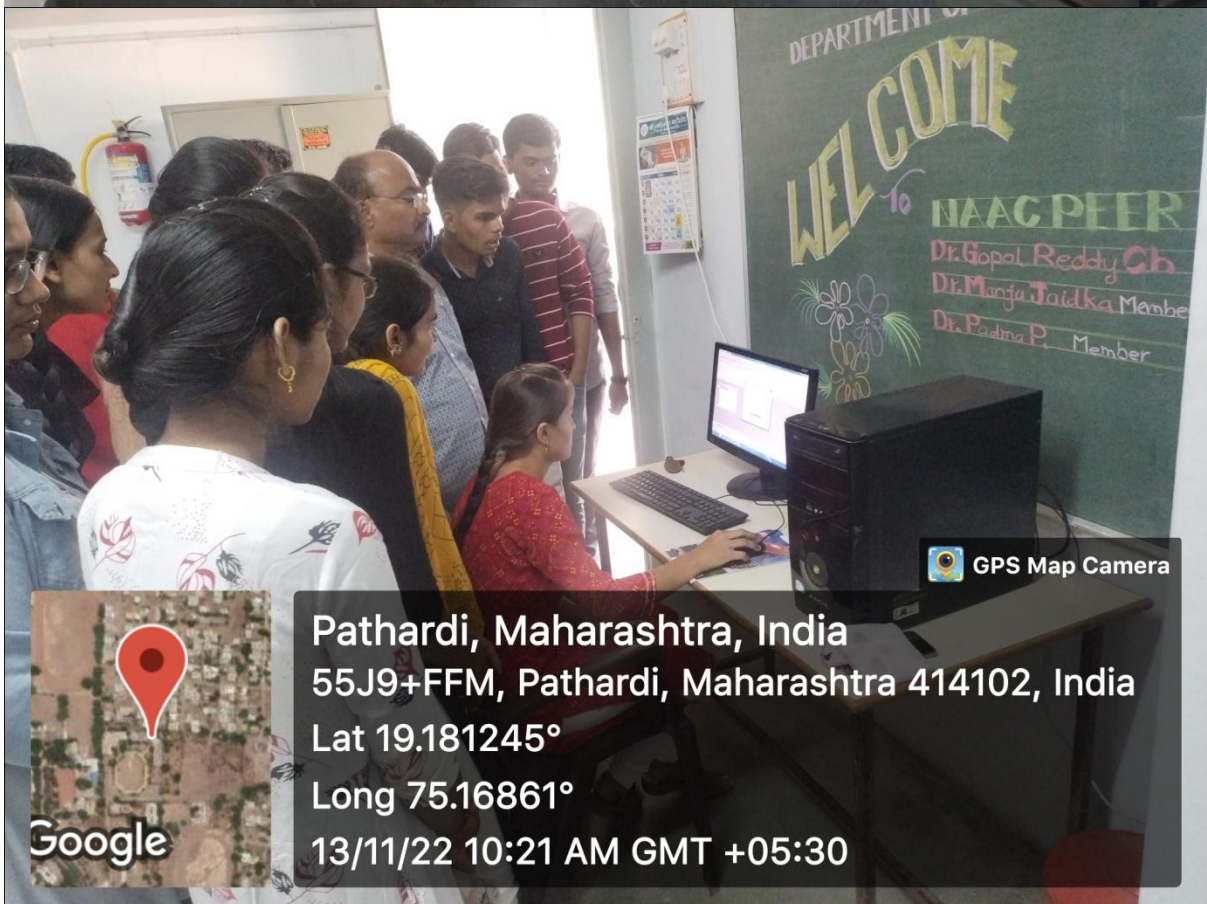
GPS Map Camera



Pathardi, Maharashtra, India
55J9+FFM, Pathardi, Maharashtra 414102, India
Lat 19.181447°
Long 75.168604°
09/10/22 10:24 AM GMT +05:30



Pathardi, Maharashtra, India
55J9+FFM, Pathardi, Maharashtra 414102, India
Lat 19.181431°
Long 75.168375°
09/10/22 10:05 AM GMT +05:30



Pathardi, Maharashtra, India
55J9+FFM, Pathardi, Maharashtra 414102, India
Lat 19.181245°
Long 75.16861°
13/11/22 10:21 AM GMT +05:30





Computing skill & Hands-on training