

Dr. Aparna Jitesh Tailor
Assistant Professor
Dept. of Microbiology
Date: 21st February 2023

To,
Principal
Dr. APJ Abdul Kalam Govt. College
Dokmardi, Silvassa.

SUBJECT: Report submission for Hands-On Training for Final year B. Sc. students

Respected Sir,

Kindly find enclosed report for "Hands-on Training for Real-Time PCR testing" organized by Department of Botany and Department of Microbiology, jointly with Department of Microbiology, NAMO Medical Education and Research Institute, Silvassa, during 14th and 15th February 2023, for Final year B. Sc. students. We acknowledge your kind cooperation for upgrading students subject relevant skills and use of sophisticated instruments with this program.

Dr. Kalpesh Mahla, Department of Microbiology, Dr. APJ Abdul Kalam Govt. College has accompanied 19 students of Semester VI (Botany and Microbiology) and provided technical assistance during training. Also, as per your permission and further checking by Prof. Narayan Kamath, certificate of participation, were printed, and the bills for the same is attached herewith. I request you to kindly reimburse the bills at an earliest. Also, Attendance sheet for both the days are attached herewith for reference.

Thank you for your kind co-operation,

Yours Faithfully



(Aparna J. Tailor)

Professor I/C. (Microbiology)
DR. APJ ABDUL KALAM GOVT. COLLEGE,
Silvassa, DNH & DD.
Enclosures:

Dr. APJ Abdul Kalam Government College
DNH & DD. 629
22/02/2023



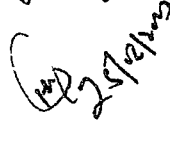
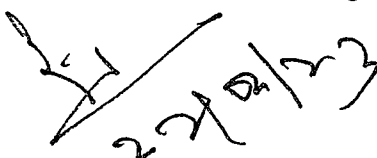
(Prakash R. Patel)

Professor I/C. (Botany)
DR. APJ ABDUL KALAM GOVT. COLLEGE,
Silvassa DNH & DD.

1. Report for Hands-on training for Real-time PCR testing.

2. Photocopy of the attendance sheet for the visit

3. Bill of certificate printing for reimbursement



Microbiology Dept
File

Report on

Hands-on Training of Real-Time PCR Testing, 14th & 15th February 2023

Department of Botany and Department of Microbiology, Faculty of Science, at Dr. APJ Abdul Kalam Govt. College, Silvassa, jointly organized a Hands-On Training of Real-Time PCR Testing, in collaboration with Department of Microbiology, NAMO Medical Education and Research Institute, Silvassa, for Final Year B. Sc. students of Botany and Microbiology specialization. Department of Botany and Microbiology are thankful to kind cooperation of Dr. Ram Chandra Goyal, Dean, NAMO-MERI and Dr. Narayan Kamath, Head and Professor, Department of Microbiology, NAMO-MERI, Silvassa, for their kind cooperation for skill development in Science graduates. The Hands-On Training was scheduled on 14th and 15th February 2023, at The Virology Laboratory, Dadra, Silvassa, during 9 am to 4 pm.

Team of 19 students, 10 students of B. Sc. Microbiology and 9 students of B. Sc. Botany reached the Virology laboratory, Dadra, in time. Dr. Kalpesh Mahla, Visiting Faculty, Dr. APJ Abdul Kalam Govt. College, accompanied the students and also provided technical assistance during the training. Students were assembled in conference room for initial instructions and theoretical explanation of the training and the instruments to be used. Prof. (Dr.) Narayan Kamath, Head, Department of Microbiology, NAMO-MERI explained the basics of instruments and general laboratory safety instructions. Shri Mustafa Vohra, State Microbiologist, The Virology Lab, Dadra, was the resource person, for technical handling and Hands-On, from NAMO-MERI, Silvassa. Shri Dipesh Patel, Laboratory Technician, also provided the technical assistance during the training.

Further, students were explained about the concept of Polymerase Chain Reaction (PCR) and its recent type Real-Time PCR (RT-PCR) by Dr. Narayan Kamath. Students were also given practical hints about PCR protocol, the basic steps by Dr. Kalpesh Mahla. Further, students were taken in laboratory, where they prepared the Master Mix for RT-PCR and put it for PCR run. Students were also taught about setting up of a PCR reaction cycle program using Thermal Cycler. The PCR run was started and then students were given a very basic overview of Primer designing. Then, RT-PCR graph analysis and its quantitation was taught by Shri Mustafa Vohra, in detail.

After a short break, the team of students was taken for learning about Throat swab specimen (sample) collection and also about the Transport media, the Transport vial, and Refrigeration for storage of sample till analysis. Students were also demonstrated about

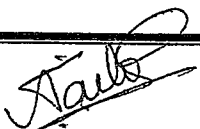


Hands-On Training of Real-Time PCR testing, 14 & 15 February 2023

Refrigerated transportation facility for Specimen till further analysis. Shri Dipesh Patel explained and made students learn about RNA extraction from sample, its purification, and further analysis. He also made them learn how to use ultracentrifuge during nucleic acid extraction. Students were given an overview of use of magnetic beads in extraction and purification of nucleic acids. The sessions were brainstorming with lot of questions from student side and content answers from the resource persons. The first day ended at about 5:30 pm.

Next day, 15th February 2023, all 19 students reached the Virology lab, Dadra, in time. Students were again given a quick revision of PCR technique, theoretically and practically. Detailed session was conducted to make them aware about endless applications of PCR in all fields of Science. Further, students were shown an Oxford Nanopore Sequencer, and were given an overview of how to use it. Sophisticated instruments like Gel Electrophoresis assembly, Refrigerated storage facility and thermostatically controlled incubator with Rotary shaker was also demonstrated and practically students were allowed to operate it for practice and Hands-on.

In the concluding session, students were given know-how of laboratory activities. Also, Prof. Kamath motivated students to apply for Summer Training session for detailed learning and practice, during vacations. The two days Hands-on added a lot to the learning and instrumentation skills of participated students from Botany and Microbiology, which is also evident from their feedback. We, at Department of Botany and Microbiology are thankful to Principal sir and college administration to provide us an opportunity for this skill enhancement initiative for our students. Participation certificates were given by Hon'ble collector, Smt. Bhanu Prabha, Silvassa, on 18th February 2023. We are thankful to madam for motivating our students. We wish to have more such skill based programs, which adds to the subject content apart from classroom learning.

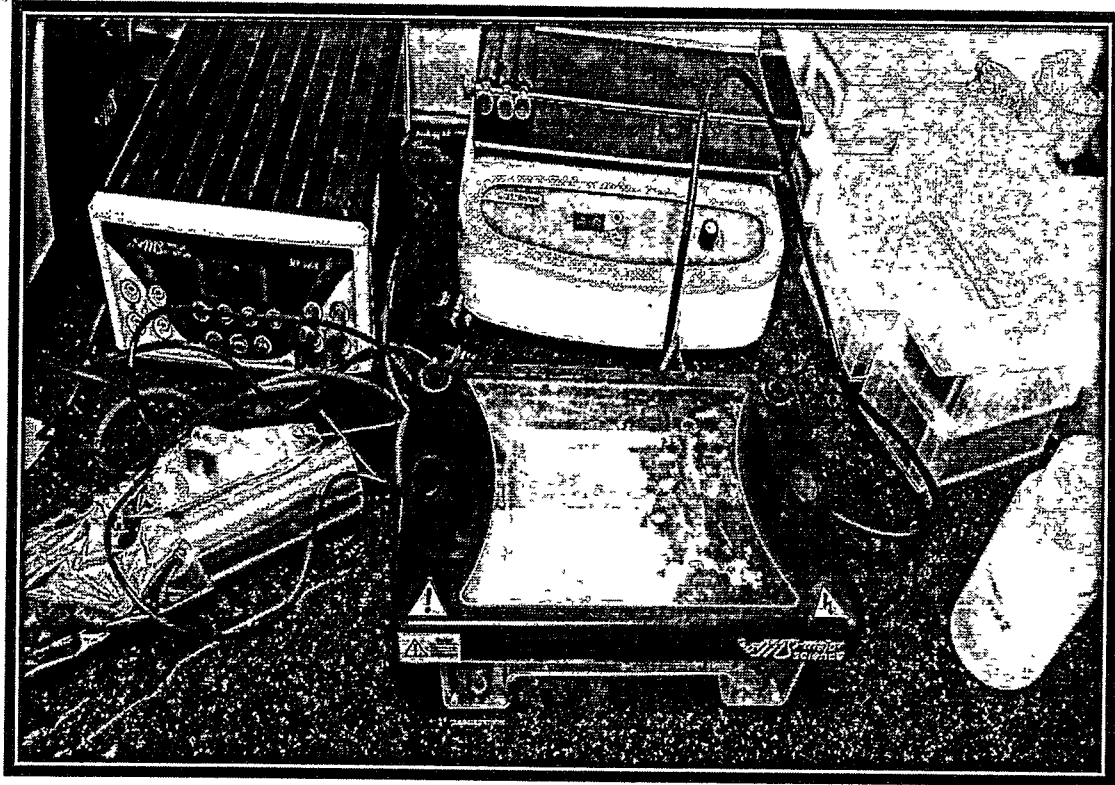


Few Glimpses of the Hands-On training of Real-Time PCR Testing



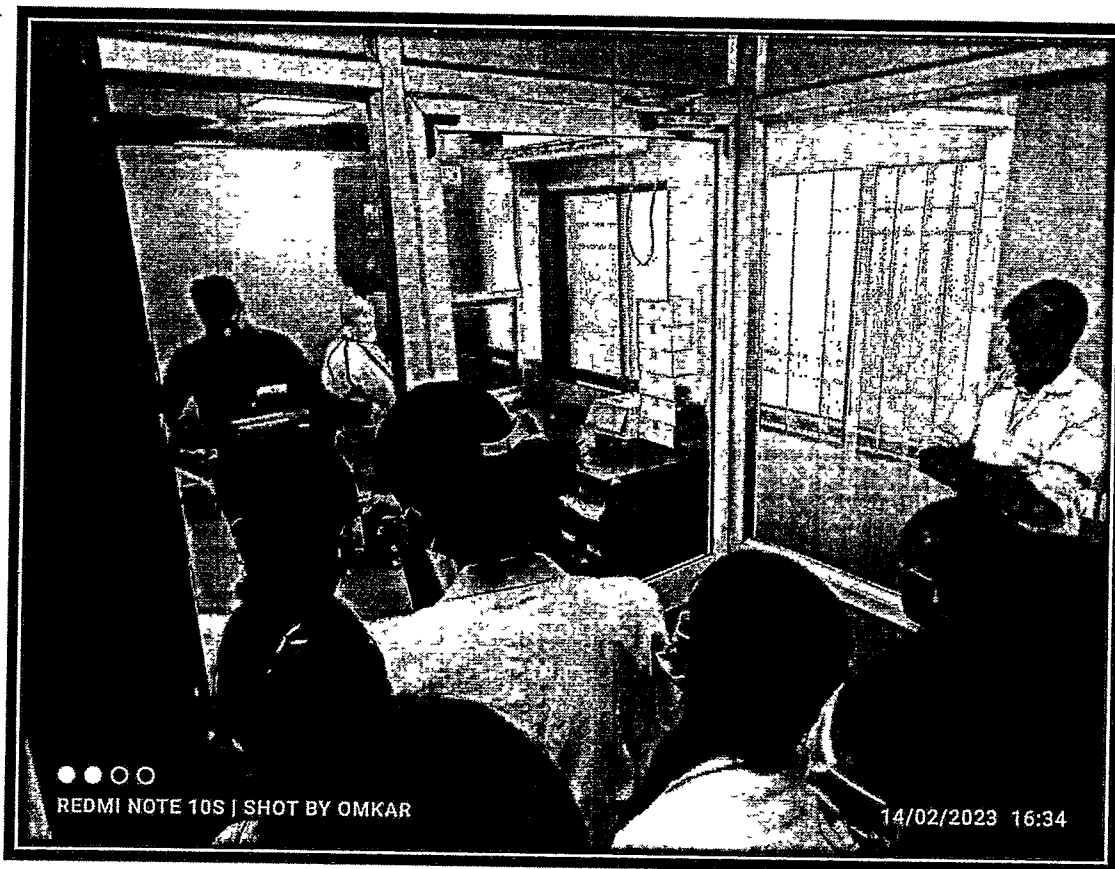
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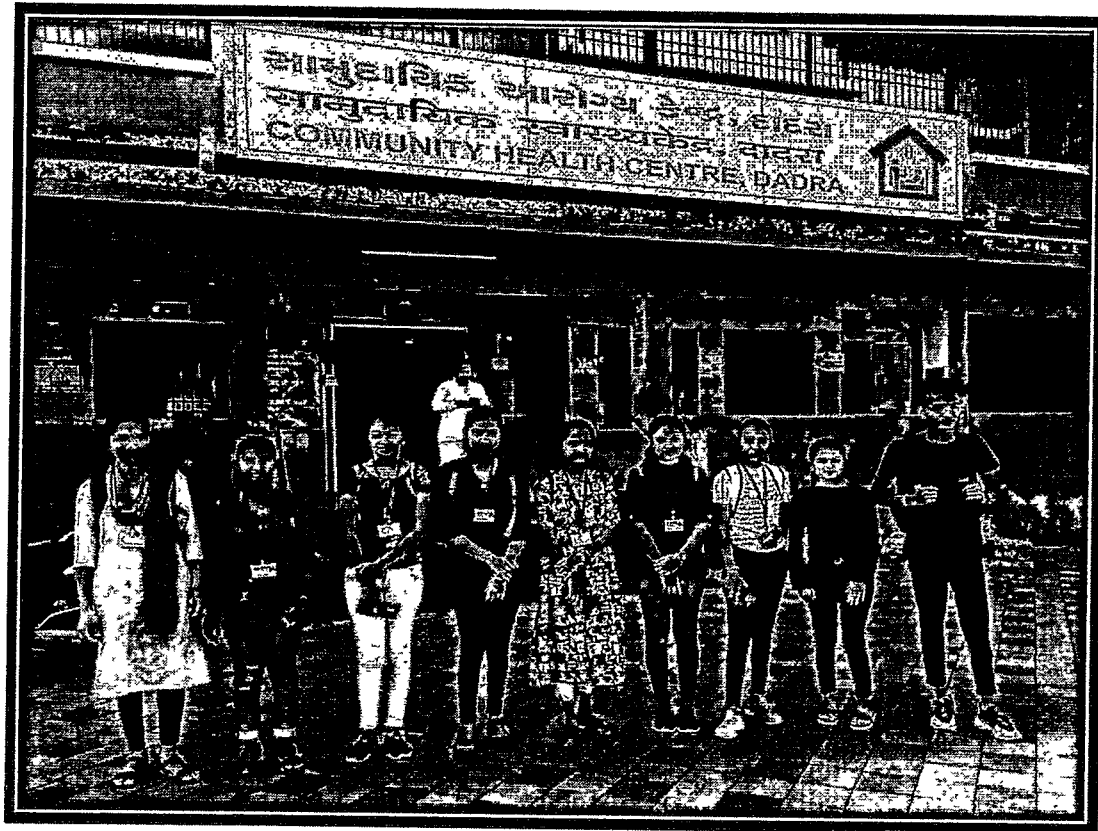
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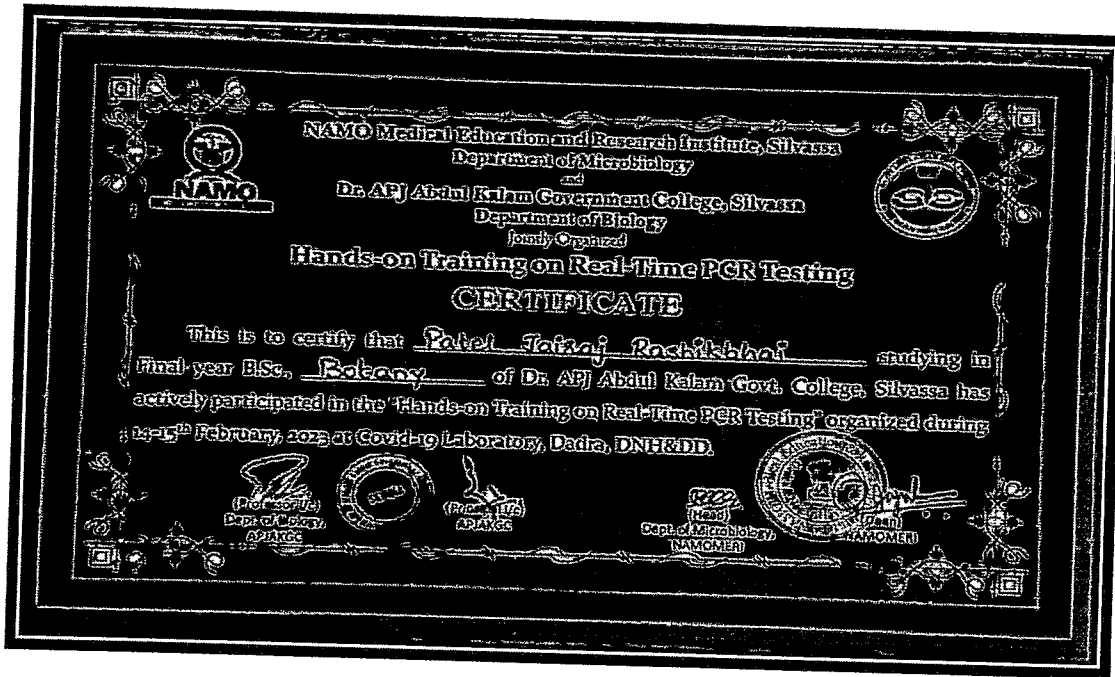
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Prepared & Submitted by:

Tailor
21/02/23

Dr. Aparna Jitesh Tailor

Professor I/C. (Microbiology)
DR. APJ ABDUL KALAM GOVT. COLLEGE,
Silvassa, DNH & DD.

Prakash R. Patel

Dr. Prakash R. Patel

Professor I/C. (Botany)
DR. APJ ABDUL KALAM GOVT. COLLEGE,
Silvassa, DNH & DD.

Hands-On Training on Real-Time PCR Testing

Jointly organized by

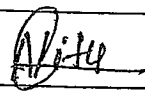


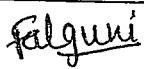

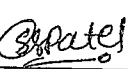
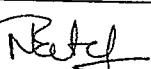
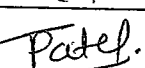

NAMO-Medical Education and Research Institute, Silvassa

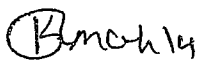
&

Dr. APJ Abdul Kalam Govt. College, Silvassa

Department of Botany

Date: 14th February 2023 (9:00 am – 4:00 pm)

Sr. No.	Roll No.	Name of the Student	Signature
1	209	Nitu Vishram Vilhat	
2	202	Patel chetika. B.	
3	205	Patel Harshita	
4	204	Patel Falguni	
5	201	Ganvit Ankita	
6	212	Patel shalina	
7	208	Patel Nikita	
8	210	Twinkle Patel	
9	206	Jairaj Patel	
10			
11			
12			



14/02/23

Dr. Kalpesh D. Mahles


14/02/23

Musfata Vishram

Hands-On Training on Real-Time PCR Testing

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&

Dr. APJ Abdul Kalam Govt. College, Silvassa

Department of Microbiology

Date: 15th February 2023 (9:00 am – 4:00 pm)

Sr. No.	Roll No.	Name of the Student	Signature
1	301	Vanna Chandni M.	C.M. Vanna
2	302	Singh Kavishma Narendra	Kavishma.
3	303	Krunal N. Patel	Krunal
4	304	Manisha Yadav	Manisha
5	305	Ray Menka Ku. Jyoti	Menka
6	306	Ankur Dere	Ankur
7	307	Prince Vijaybhai Patel	Prince
8	308	Nikitakumari Purohit	Nikitakumari
9	309	Ratul Rajendra Rana	Ratul
10	310	Sahin Harani	Sahin

Bmahly
15/02/23

Dr. Kulpesh L. Mahila

Abh
15/02/23

Musfata Vohra

Hands-On Training on Real-Time PCR Testing

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NAMO-Medical Education and Research Institute, Silvassa

&

Dr. APJ Abdul Kalam Govt. College, Silvassa

Department of Botany

Date: 15th February 2023 (9:00 am – 4:00 pm)

Sr. No.	Roll No.	Name of the Student	Signature
1	201	Ganvit Ankita	A.R-Ganvit
2	202	Patel Chetika. B.	B.Patel
3			
4	204	Patel Falguni	Falguni
5	205	Patel Harshita	Harshita
6	206	Jairoj Patel	JPP
7			
8	208	Patel Nikita	N.Patel
9	209	Nitu Vishram Vilhat	Nitu
10	210	Twinkle Patel	Patel.
11			
12	212	Patel Shalina	S.Patel

B. Mahli
15/02/23

Dr. Kulpesh L. Mahli

MVA
15/02/23

Mustafi Vishram

Attendance Sheet - Semester VI

Hands-On Training on Real-Time PCR Testing

Jointly organized by

NAMO-Medical Education and Research Institute, Silvassa

&

Dr. APJ Abdul Kalam Govt. College, Silvassa

Department of Microbiology

Date: 14th February 2023 (9:00 am - 4:00 pm)

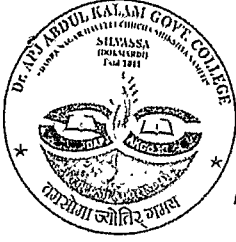
Sr. No.	Roll No.	Name of the Student	Signature
1	301	Varma Chandni M.	C.M. Varma
2	302	Singh Karishma Narendra	Karishma.
3	303	Patel Krunal N.	
4	304	Manisha Yashav	
5	305	Paw Menka Ku. Ajay	
6	306	Omkar. D. Dere	Omkar.
7	307	Prince Vijaybhai Patel	
8	308	Nikita Kumari Panchit	
9	309	Ritui Rajendra Rana	Ritui..
10	310	Sahin Haran	

14/02/23

14/02/23

Manisha Yashav

Dr. Karpesh L. Mahla



Dr. APJ Abdul Kalam Government College
डॉ. एपीजे अब्दुल कलाम शासकीय महाविद्यालय

Dadra and Nagar Haveli Uchha Shikshya Samiti
दादरा एवं नगर हवेली उच्च शिक्षा समिति

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NAAC Accreditation Grade "B"

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Dokmardi, Silvassa-396230, Dist. Dadra & Nagar Haveli, (U.T. of DNH & Daman & Diu)
डोकमर्डी, सिलवासा-३९६२३०- जिला दादरा नगर हवेली : (केंद्रशासीत प्रदेश दादरा एवं नगर हवेली एवं दमन एवं दीव)

Phone No: 9429427117

website: <http://www.apjakgc.ac.in>

Email: dnh.sihl2011@gmail.com

No. EDN/APJAKGC/Dept.Micro/2021/617/576

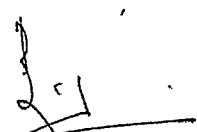
Date:- 13/02/2023

NOTICE

All Students of B.Sc Sem- VI (Botany & Microbiology) are informed that Hands-On training workshop has been schedule at Virology Lab., Dadra on 14.02.2023 & 15.02.2023 from 09:00 am. to 04:00 p.m.

Shri Kalpesh Mahala, Visiting Faculty (Microbiology) will be Coordinator for said workshop.




Principal (I/c.)
Dr. APJ Abdul Kalam Govt. College
Dadra & Nagar Haveli
Silvassa

To:-

1. Shri Kalpesh Mahala, Visiting Faculty (Microbiology).
2. Circulation into Classrooms of B.Sc Sem- VI (Botany & Microbiology).
3. Notice boards.

Copy to:-

1. Dr. Aparna J Tailor, Professor I/c. (Microbiology) for information please.
2. Dr. Prakash Patel, Professor I/c. (Botany) for information please.