



# **SONOPANT DANDEKAR ARTS, V.S. APTE COMMERCE AND M.H. MEHTA SCIENCE COLLEGE, PALGHAR**

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## **DEPARTMENT OF CHEMISTRY**

### **Certificate Course Quality Control and Instrumentation**

**Under the Aegis of**

**Centre for Excellence and Innovation**

**Academic Year: 2019-2020**

**Prof. Mahesh Deshmukh**  
**CFEI – Chairman**

**Dr. Kiran Save**  
**Principal**

# Certificate Course in Quality Control and Instrumentation

## Report 2019-2020

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# Certificate course in Quality Control and Instrumentation

**Duration:** 53 hours

## **Features of the course:**

- Specially designed to give hands on training of sophisticated instruments used in industries
- Delivered by experts from the industry and experience faculties.
- Covered various processes used in quality control lab of pharmaceutical industries.

## **Objective:**

- To learn various processes and terminology used in QC lab of pharmaceutical industries.
- To learn fundamental principle, theories of various sophisticated instruments.
- To develop skills of handling various analytical instruments.
- To understand the basic calculations required in instrumental operation and preparation of solutions.
- To explore proper record keeping in laboratory.

## **Eligibility:**

Pass B.Sc. Chemistry

**Certification:** Certificate will be provided on the basis of practical examination.

Mr. Deepesh Gharat – Manager, QA, Lupin Limited, Tarapur

## **Learning outcome**

Students will

- Acquire detailed theoretical knowledge as well as practical experience for handling various instruments used in QC laboratory.
- Students will develop practical skills of handling and troubleshooting instruments.
- Students will be able to co-relate the concepts and apply in practical field.

Date: 20<sup>th</sup> July, 2019

To,

The Principal,

Sonopant Dandekar Arts, V.S. Apte Commerce and

M.H. Mehta Science College,

Palghar

**Subject: Approval for Certificate Course in Quality Control and Instrumentation (M.Sc.)**

Respected Sir,


For developing instrumental skills in students, we have designed certificate course for the class of M.Sc. The course is aimed at enhancing skills and knowledge of students in basic instrumental techniques. This course will benefit the students by providing them with an opportunity to develop their expertise in this area. Their instrument and apparatus handling skills will be improved by the Certificate Course in Quality Control and Instrumentation for M.Sc. course.

The Certificate Course will be offered in the month of August, 2019

The details are provided along with this letter. I request you to kindly grant the permission to start this course.

Thanking you.

Yours faithfully



Dr. Suhas Janwadkar  
Head, Department of Chemistry



## SYLLABUS

### 1. Theoretical Part

<b>Sr. No.</b>	<b>Content</b>	<b>Hours required</b>
1	Good Laboratory Practices	1
2	Safety Precautions	1
3	Good Documentation Practices	1
4	Chemical Calculations	2
5	Introduction to pharmacopeia	1
	<b>Total</b>	<b>6</b>

### 2. Practical Part

#### A. Instrumentation

<b>Sr. No.</b>	<b>Content</b>	<b>Hours required</b>
1	Gas Chromatography	21
2	High Performance Chromatography	18
3	UV-Visible Spectroscopy	3
	<b>Total</b>	<b>42</b>

#### B. Wet Chemistry

<b>Sr. No.</b>	<b>Content</b>	<b>Hours required</b>
1	Solubility	1
2	Preparation of Volumetric Solutions	2
4	Specific gravity	2
	<b>Total</b>	<b>5</b>



*Sonopant Dandekar Shikshan Mandali's*  
**Sonopant Dandekar Arts, V. S. Apte Commerce &  
M. H. Mehta Science College, Palghar, Dist: Palghar**  
**ACADEMIC YEAR 2019-20**

**Date : 01/08/2019**

**NOTICE**

All the **M.Sc.** students are hereby informed that their **Certificate Course in Quality Control and Instrumentation** will begin from 16<sup>th</sup> August, 2019. Batch details are shared along with this notice.

**Dr. Suhas Janwadkar**

**Head ,Department of Chemistry**



## STUDENT ENROLMENT LIST

### STUDENT ENROLMENT LIST

ROLL NO.	NAME OF THE STUDENT
1	PATIL KIMAYA SOPAN
2	BANDEKAR POOJA SUNILDUTT
3	RAUT KRUTIK SAINATH
4	DHIKAR NAMRATA RATAN
5	MISHRA PRIYA RAJESH
6	MISTRY JYOTI KISTURCHANND
7	WANKHEDED VISHAKHA ASHOK
8	MISTRY HIRAL KIRAN
9	SHEJWAL SHRADDHA SANJAY
10	SINGH SONU KEDARNATH
11	CHAVHAN LAKHAN SANTOSH
12	RAUT ABHIDNYA ASHOK
13	INGALE KAJAL PRAVIN
14	MOKASHI JYOTIKA SURESH
15	PAWADE SAKSHI JAGDISH
16	GHARAT JANMESH SADASHIV
17	RAUT AKANKSHA DINESH
18	DARJI HIRALBEN JASVANTBHAI
19	KADU VIBHASHA JAYWANT
20	YADAV SOHAN DEVENDRA
21	WAYKOLE PRIYANKA UMESH
22	GHARAT DISHA SHRIKANT
23	BARAD RASULA KASHINATH
24	KATHYA PRITI SURESH
25	PATIL KIMAYA RAMCHANDRA
26	SANKHE TANVI VINOD
27	TAMORE MANASI VINAYAK
28	BHOYE KANCHAN SURESH
29	PATIL APEKSHA DATTATREY
30	PATIL SONALI VASANT



ROLL NO.	NAME OF THE STUDENT
31	YADAV PRIYANKA JAYKISHAN
32	PORLEKAR ROHIT KERABA





# ATTENDANCE REPORT

MSc I 2019-2020

Sr. No.	Students Name	16/08	17/08	23/08	24/08	30/08	6/10	7/10	13/10	14/10
1	PATIL KIMAYA SOPAN	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>
2	BANDEKAR POOJA SUNILDUTT	B. Pooja	B. Pooja	B. Pooja	B. Pooja	B. Pooja	B. Pooja	B. Pooja	B. Pooja	B. Pooja
3	RAUT KRUTIK SAINATH	Krutik	Krutik	Krutik	Krutik	Krutik	Krutik	Krutik	Krutik	Krutik
4	DHIKAR NAMRATA RATAN	<del>N</del>	<del>N</del>	<del>N</del>	<del>N</del>	<del>N</del>	<del>N</del>	<del>N</del>	<del>N</del>	<del>N</del>
5	MISHRA PRIYA RAJESH									
6	MISTRY JYOTI KISTURCHANND	M. Jyoti	M. Jyoti	M. Jyoti	M. Jyoti	M. Jyoti	M. Jyoti	M. Jyoti	M. Jyoti	M. Jyoti
7	WANKHEDE VISHAKHA ASHOK									
8	MISTRY HIRAL KIRAN									
9	SHEJWAL SHRADDHA SANJAY	<del>A</del>	<del>A</del>	<del>A</del>	<del>A</del>	<del>A</del>	<del>A</del>	<del>A</del>	<del>A</del>	<del>A</del>
10	SINGH SONU KEDARNATH									
11	CHAVHAN LAKHAN SANTOSH	Chavhan	Chavhan	Chavhan	Chavhan	Chavhan	Chavhan	Chavhan	Chavhan	Chavhan
12	RAUT ABHIDNYA ASHOK	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut
13	INGALE KAJAL PRAVIN	Kingale	Kingale	Kingale	Kingale	Kingale	Kingale	Kingale	Kingale	Kingale
14	MOKASHI JYOTIKA SURESH	M. Jyotika	M. Jyotika	M. Jyotika			M. Jyotika	M. Jyotika	M. Jyotika	
15	PAWADE SAKSHI JAGDISH									
16	GHARAT JANMESH SADASHIV	Janmesh	Janmesh	Janmesh	Janmesh	Janmesh	Janmesh	Janmesh	Janmesh	Janmesh
17	RAUT AKANKSHA DINESH	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut
18	DARJI HIRALBEN JASVANTBHAI	Jadaji	Jadaji	Jadaji	Jadaji	Jadaji	Jadaji	Jadaji	Jadaji	Jadaji
19	KADU VIBHASHA JAYWANT	K. Jaywant	K. Jaywant	K. Jaywant	K. Jaywant	K. Jaywant	K. Jaywant	K. Jaywant	K. Jaywant	K. Jaywant
20	YADAV SOHAN DEVENDRA	Y.S.D.	Y.S.D.		Y.S.D.	Y.S.D.	Y.S.D.		Y.S.D.	
21	WAYKOLE PRIYANKA UMESH	Priyanka	Priyanka	Priyanka		Priyanka		Priyanka		Priyanka
22	GHARAT DISHA SHRIKANT	G.D.S.	G.D.S.	G.D.S.	G.D.S.	G.D.S.	G.D.S.	G.D.S.	G.D.S.	G.D.S.
23	BARAD RASULA KASHINATH	Rasula	Rasula		Rasula	Rasula		Rasula		Rasula
24	KATHYA PRITI SURESH	K. P. Suresh	K. P. Suresh	K. P. Suresh	K. P. Suresh		K. P. Suresh	K. P. Suresh	K. P. Suresh	K. P. Suresh
25	PATIL KIMAYA RAMCHANDRA	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>
26	SANKHE TANVI VINOD	Tsankhe	Tsankhe	Tsankhe		Tsankhe	Tsankhe	Tsankhe	Tsankhe	Tsankhe
27	TAMORE MANASI VINAYAK	Tamare	Tamare	Tamare	Tamare	Tamare	Tamare	Tamare	Tamare	Tamare
28	BHOYE KANCHAN SURESH	K. Bhoje	K. Bhoje	K. Bhoje	K. Bhoje	K. Bhoje	K. Bhoje	K. Bhoje	K. Bhoje	K. Bhoje
29	PATIL APEKSHA DATTATREY	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>
30	PATIL SONALI VASANT	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>	<del>P</del>
31	YADAV PRIYANKA JAYKISHAN	Priyanka	Priyanka	Priyanka	Priyanka	Priyanka		Priyanka	Priyanka	Priyanka
32	PORLEKAR ROHIT KERABA	R. Porlekar	R. Porlekar	R. Porlekar	R. Porlekar	R. Porlekar		R. Porlekar	R. Porlekar	R. Porlekar

## SUMMARY REPORT

Certificate Course in Quality Control and Instrumentation was conducted for the students of M.Sc. Students were trained for basic handling of apparatus, chemical calculations, preparation of standard solutions.

A certificate course in Quality Control and Instrumentation provides several benefits to learners. It enhances their skills and knowledge in the field of chemistry.

The course helps to develop a solid understanding of various analytical techniques and methods used in the laboratory and theoretical concepts. Learners gain hands-on experience in using instruments and correct way to handle apparatus.

A certificate in this course adds an advantage to learner's resume. Various sophisticated instruments are widely used in industries, acquiring skills in this area can makes the learner highly relevant and valuable in these sectors, as they can immensely contribute to various areas in the industry.

Course Commencement: 16/08/2019

Course Completion: 14/10/2019

Number of students enrolled for the course: 32

Number of students completed the course: 32

Duration of the course: 53 hours



**Dr. Suhas Janwakar**

**HOD – Chemistry**

## FEEDBACK FORM

Sonopant Dandekar Arts, V.S. Apte Commerce and M.H.Mehta  
Science College, Palghar

Internal Quality Assurance Cell

Feedback Form on Certificate Course for Postgraduate in  
Chemistry

Name: Patil Kimaya Sapan

30.08.19

Class: MSc

Roll No.: 01

Sr.No.	Parameters	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	After completing this course, my knowledge in the topic has increased.	✓				
2	This course increased my interest in chemistry related topics.	✓				
3	The teacher communicated clearly and effectively	✓				
4	The teacher encouraged feedback, class participation and interaction	✓				
5	The course started and ended on schedule	✓				
6	Course objectives were clearly presented	✓				
7	Course material was well prepared	✓				
8	The course developed my understanding of concepts and principles	✓				

Kimaya  
Signature of student

## **ACTION PHOTOGRAPHS**



**ASST.PROF. KAUSHIK MESTRY EXPLAINING TITRATION TECHNIQUES**



## SAMPLE CERTIFICATES



**SONOPANT DANDEKAR SHIKSHAN MANDALI'S**  
**Sonopant Dandekar Arts, V.S. Apte Commerce &**  
**M.H. Mehta Science College, Palghar**

# CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

**Ms. SANKHE TANVI V.**

for successfully completed

***Certificate course Quality Control and Instrumentation***

  
Head  
Department of Chemistry

  
CFEI - Chairman

DATE : 12/02/2020



  
Principal  
Sonopant Dandekar Arts College  
V.S. Apte Commerce College &  
M.H. Mehta Science College  
PALGHAR (W.R.)  
Dist. Palghar, Pin-401404





**SONOPANT DANDEKAR SHIKSHAN MANDALI'S**  
**Sonopant Dandekar Arts, V.S. Apte Commerce &**  
**M.H. Mehta Science College, Palghar**

# CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

**Ms. PATIL KIMYA SOPAN**

for successfully completed

***Certificate course Quality Control and Instrumentation***

*Tamle*

Head  
Department of Chemistry



*M. Deshmukh*  
CFEI - Chairman

DATE : 12/02/2020



*K. Sane*

Principal  
Sonopant Dandekar Arts & Commerce  
V.S. Apte Commerce College &  
M.H. Mehta Science College  
PALGHAR (W.R.)  
Dist. Palghar, Pin-401404



**SONOPANT DANDEKAR SHIKSHAN MANDALI'S**  
**Sonopant Dandekar Arts, V.S. Apte Commerce &**  
**M.H. Mehta Science College, Palghar**

# CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

**Mr. SINGH SONU K.**

for successfully completed

***Certificate course Quality Control and Instrumentation***

Head  
Department of Chemistry

  
CFEI - Chairman

DATE : 12/02/2020



Principal  
Sonopant Dandekar Arts College  
V.S. Apte Commerce College &  
M.H. Mehta Science College  
PALGHAR (W.R.)  
Dist. Palghar, Pin-401404