

# INDIRA GANDHI (SR.) COLLEGE, CIDCO, NANDED

## DEPARTMENT OF CHEMISTRY

### **CERTIFICATE COURSE: Purification and Separation Techniques in Chemistry**

Sr. No.	Heading	Particulars
1	Title of the Course	<b>Purification and Separation Techniques in Chemistry</b>
2	Eligibility for Admission	<b>Chemistry B.Sc. Third Year in academic year 2020-21</b>
3	Passing Marks	<b>The candidate must obtain 40% of the total marks in theory and to pass the course.</b>
4	Ordinances/Regulations (if any)	---
5	No. of Years/Semesters/Months	<b>12 Weeks (03 Months)</b>
6	Level	<b>Certificate Course (Online Mode)</b>
7	Pattern	<b>Months</b>
8	Total Credit	<b>Three Credits</b>
9	Implemented from the Academic Year	<b>From Academic Year 2020-2021</b>

Name of Course Coordinator: **Dr.D.B. Kadam**

#### **OBJECTIVES OF THE COURSE**

- ✓ To learn Basics Principles of Knowledge of purification and separation.
- ✓ To understand analytical techniques of separation and purification.
- ✓ To understand importance of Instrumental Analysis.
- ✓ To acquire and develop capability for laboratory knowledge of analytical chemistry.

#### **OUTCOME OF THE COURSE**

- The participant of the certificate course will acquire Basic Knowledge for separation and purification techniques
- Benefits for students will help to acquire jobs in R&D laboratories and Chemical Industries.

#### **FEES STRUCTURE OF THE COURSE**

Name of the Course	Course Fee (Rs)
<b>Purification and Separation Techniques in Chemistry</b>	Free

## COURSE DETAILS:

1. Intake for the Certificate Course: 20
2. The admission shall be open to B.Sc. Chemistry Students in academic year 2020-21.
3. The Course will be of 03 Credits
4. There will be 40 Theory Sessions and 08 Practical Sessions by online mode.
5. The candidate upon passing examination will be awarded a separate Course Completion Certificate by College.
6. Every candidate will be required to attend a minimum of 75% sessions delivered for the course.
7. The candidate must obtain 40% of the total marks in theory and assignments.
8. Candidates will be offered English as a medium of Instructions/Examination.

## Syllabus and Schedule:

Course	Unit	Topic	Lectures
Month 1	Unit 1	1. Chemicals and Materials Analysis Methods 2. Role of Analytical Chemistry and Techniques 3. Chemical Equilibria and Basis of Chemical Analysis 4. Spectrochemical Methods - I	15
Month 2	Unit 2	1. Spectrochemical Methods - II 2. Thermal Methods - I 3. Thermal Methods - II 4. Electroanalytical Methods - I	15
Month 3	Unit 3	1. Electroanalytical Methods - II 2. Electrochemical Sensors 3. Bioanalytical Chemistry 4. Applications of Chemical Analysis	15
Total Credit	03	External+ Internal = 50+25=75	45


### **Final Assessment Method for award of Certificate: 50+25=75 Marks**


1. Duration - The final examinations for external assessment will be of one hour.
2. It will be Online Multiple Choice Question Paper Pattern (MCQ) Examination.
3. There will be 50 MCQ questions each of 01 marks. The questions will cover both Theory and Practical.

### **Student Enrollment for Certificate Course:**

Sr. No.	Name of Student	Class	Mobile Number	Email ID
01	Rajshree Madhav Kompalwar	B.Sc. T.Y.	9764057567	<a href="mailto:dayanandkompalwar@gmail.com">dayanandkompalwar@gmail.com</a>
02	More Vidya Dattarao	B.Sc. T.Y.	8263998395	<a href="mailto:vdmoredeshmukh@gmail.com">vdmoredeshmukh@gmail.com</a>
03	Bhagyashree Bhagwan Murkute	B.Sc. T.Y.	9657057279	<a href="mailto:bhmurkute99@gmail.com">bhmurkute99@gmail.com</a>
04	Sagar Jayram Ingale	B.Sc. T.Y.	8605287232	<a href="mailto:sagaringale973@gmail.com">sagaringale973@gmail.com</a>
06	Ajay Santosh Londhe	B.Sc. T.Y.	7720055718	<a href="mailto:ajaylondhe137@gmail.com">ajaylondhe137@gmail.com</a>
07	Pathan Shahed Ayub	B.Sc. T.Y.	7387886463	<a href="mailto:pathanshahed699@gmail.com">pathanshahed699@gmail.com</a>
08	Rachalwar Saiprasad Shivaji	B.Sc. T.Y.	9527813416	<a href="mailto:saiprasadrachalwar456@gmail.com">saiprasadrachalwar456@gmail.com</a>
09	Ambure Shubham Arunrao	B.Sc. T.Y.	9579864138	<a href="mailto:75ambureshubham@gmail.com">75ambureshubham@gmail.com</a>

### Registration Form:



**Shri Sharda Bhavan Education Society's  
INDIRA GANDHI (SR) COLLEGE**  
 CIDCO, NEW NANDED (Maharashtra) - 431603  
 (Affiliated to Swami Ramanand Teerth Marathwada University, Nanded)  
 NAAC Accredited 'B' Grade with CGPA: 2.62 & ISO 9001:2008 Certified  
 Best College Award by S.R.T.M. University, Nanded



**Registration Form**

(Certificate Course in "Purification and Separation Techniques In Chemistry")

- Name of Student: Rachalwar Saiprasad Shivaji
- Class : B.Sc III<sup>rd</sup> Yr
- Optional Subject: Physics / Chemistry / Mathematics
- Email ID: saiprasadrachalwar456@gmail.com
- Mobile Number: 9527813416
- Address: Nd 42 H 7/5 Dnyaneshwar Nagar huda  
Nanded.

  
 Signature of Candidate

### Certificate:




Shri Sharda Bhavan Education Society's  
**INDIRA GANDHI (SR.) COLLEGE**

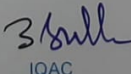
CIDCO, NEW NANDED (Maharashtra) - 431603  
Reg No :- N.G.C 2000/NMV/ (1/2000) M.S. 3 Dt. 28 June 2000  
(Affiliated to Swami Ramanand Teerth Marathwada University, Nanded)  
ISO 9001:2015 Certified  
Best College Award by S.R.T.M. University, Nanded


## Certificate

This is to certify that Mr./Ms. Rachalwar Saiprasad Shivaji  
Class B.Sc. Third Year has successfully completed Add On Course/ Certificate Course entitled  
Purification and separation Techniques in Chemistry  
run by the Department of Chemistry during the year 2020 to 2021  
Hence, it is certified.

  
Course  
Co-ordinator

  
Committee  
Co-ordinator

  
IQAC  
Co-ordinator

  
Principal




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## Certificate

This is to certify that Mr./Ms. Ambure Shubham Arunrao  
Class B.Sc. Third Year has successfully completed Add On Course/ Certificate Course entitled  
Purification and separation Techniques in Chemistry  
run by the Department of Chemistry during the year 2020 to 2021  
Hence, it is certified.

  
Course  
Co-ordinator

  
Committee  
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Principal