



Shri Shivaji Education Society, Amravati's

SCIENCE COLLEGE

Congress Nagar, Nagpur-12 (M.S.), India

Accredited with CGPA of 3.51 at 8A+9 grade by NAAC, Bangalore

A+ College with Potential for Excellence = Identified by UGC New Delhi.

Institutional Member of APQNR
Recognized Centre for Higher Learning and Research

Mentor College under 8 PARAMARSH Scheme, UGC, New Delhi



SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF CHEMISTRY

Session 2022-23

Free Certificate Course for College Students

Course Title: Certificate Course in

"Chemistry For Entrepreneurship And Production".

Duration-30 Hours (10 Weeks)

Course Start from 6 Jan 2023 to 11 March 2023

Course Coordinator: Dr. R.A. Deshmukh

Report

Add on Course conducted by

Chemistry Department during 2022-23 on

Chemistry For Entrepreneurship And Production

Summary Report

One of the major hindrances in the growth of any country is unemployment. It is not only one of the major obstacles in the country's economic growth but also has several other negative repercussions on the individual as well as the society as a whole. In order to resolve the problem of unemployment and to improve the skills of the students, various departments of Science college Nagpur, put forward the notion of Add-on course programme. Chemistry department conducted job oriented Add-on course on Production of house hold chemicals like soaps, detergents, liquid soap, hand wash green cosmetics etc. The add -on course was started from 6th January 2023 to 11th March 2023 (10week) .Total 82 students from different department have participated in this course.

On the first session, training started with an introduction to health and safety in a chemical processing area, followed by the presentation of handling of hazardous chemicals, as well as product quality and later

on, different practical were conducted on manufacturing of cleaning detergent, sanitizers, cosmetics etc and showed how to formulate your own formulation for your product and when to increase or decrease the active matter in the product.

The student were explained how to become a successful entrepreneur. The capacity and willingness of the individual is the secret behind the victory.

Small video clips were also shown to students on motivational speaker and a career councilor; they explained the major concepts about entrepreneurship and taught the students how to become a successful entrepreneur.

At the end of the course, theory exam with MCQ based question of 80 marks was conducted on 23rd March 2023. Also Practical exam of students for 20 marks was conducted on 25th March 2023. After successfully completion of certificate course , students were awarded with Certificates.



R. A. Deshmukh.
Course Coordinator
S.S.E.S.A.'s Science College
Nagpur

To,
The Principal
SSES Amt's Science College,
Congress Nagar, Nagpur-12

Subject: Permission to conduct the add on courses in the department (2022-2023)

Respected Sir,

This is to request you that, we wish to conduct the add on courses in chemistry department these are the certificate courses of thirty hours' time duration:

The details of the courses is submitted here with:

Hence please permit to run the same and oblige me.

Thanking you

Yours sincerely



(Prof. Dr. V. K. Khopkar)
Department of Chemistry,
Shri Shivaji Science College
Congress Nagar, Nagpur.

20/6/22

*Permitted
as above*

(4)

SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF Chemistry

Date: 15-12-2022

Notice

All the students of B.Sc. are hereby informed that Department of Chemistry is conducting a Certificate course titled **"Chemistry For Entrepreneurship And Production"**. This course aims to enhance your practical skills and knowledge by providing training and skill development in the production of house hold cleansing agents and inculcate the leadership qualities and business abilities required by Chemical Industry and for entrepreneurship. . Register on or before 1st January 2023. Looking forward to your active participation.


Course Details:


- **Course Name: Chemistry For Entrepreneurship And Production**
- **Duration: 06th January 2023 to 11th March 2023**
- **Schedule: 10 week**
- **Eligibility: Open for all B.Sc students of SSES Science College, Congress Nagar, Nagpur**
- **Contact Information: For further details please contact**

Dr. R.A.Deshmukh

Course Coordinator

Phone:8830636054


Dr. R.A. Deshmukh
Course Coordinator
Professor
Department of Chemistry
SSES Am's Science
College Congress Nagar
Nagpur


Head of Department
Professor & Head
Department of Chemistry,
SSES Shilp Science College
Congress Nagar, Nagpur.

Certificate Course In Chemistry For Entrepreneurship And Production



Course Objectives:

- To train the students to start their own small/large scale business.
- To inculcate the idea of 'Earn while learn'.
- To promote "Make in India" concept.
- To formulate innovative chemical products that we use every day in our life.
- To practice lab to land



**Department of Chemistry
SSES Amt's Science College, Congress
Nagar, Nagpur**

Free Certificate Course for College Students

**Duration – 30 Hours(10 Weeks)
Process of Registration- Early
Birds will be admitted**

This course aims at providing training and skill development in the production of household chemicals like detergents, Disinfectant, hand wash, hand sanitizer, Cosmetics etc. for hygienic purpose. Cleanliness is essential to civilized society for good health and comfort. A clean body, clean bath, clean home and clean environment are the norms today. Improved cleanliness encourages good health. These materials can be prepared in small scale and then the same can be scaled up to any quantity. With little knowledge of the market rate of all the ingredients used, one can produce these for their own use but also can start a small scale business. Anybody can venture these materials with very small investment but can be an entrepreneur. Entrepreneurship is normally driven by individuals with a strong desire to succeed by developing their concept vision into a profit making business. The intention of this certificate course is to formulate the chemicals and inculcate the leadership qualities and business abilities required by Chemical Industry and for entrepreneurship.

**Last Date of Registration: 1 January 2023
For Registration Contact: Prof. Reshal Deshmukh (Co-ordinator)**

SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF CHEMISTRY

COURSE MODULE AND SYLLABUS

Course Title: **Certificate Course in Chemistry for Entrepreneurship**

And Production

Course Coordinator : Prof. Reshal Deshmukh

Course description:

The course provide training and skill development in the production of house hold chemicals like soaps, detergents, liquid soap, hand wash cosmetics etc. for hygienic purpose. Cleanliness is essential to civilized society for good health and comfort. These materials can be prepared in small scale and then the same can be scaled up to any quantity. With little knowledge of the market rate of all the ingredients used, one can produce these for their own use but also can start a small scale business.

Key aspects

- 1. Product Development:** Entrepreneurs often rely on chemistry to develop new products or improve existing ones. This involve Cleaning agents like detergents, bio-enzymes as disinfectants ,sanitizers and green cosmetics like shampoo, face pack, face mask etc,
- 2. Process Optimization:** Chemists working in entrepreneurship and production focus on optimizing chemical processes to maximize efficiency, reduce costs, and minimize environmental impact. This includes improving reaction yields, developing cleaner synthetic routes, and implementing sustainable practices.
- 3. Scale-Up:** Transitioning from laboratory-scale synthesis to industrial-scale production requires careful scaling-up of chemical processes. Chemists in this field must consider factors such as reaction kinetics, heat and mass transfer, and equipment design to ensure successful scale-up.

4. Safety and Regulatory Compliance: Safety is paramount in chemical production, and entrepreneurs must adhere to strict regulatory guidelines to ensure the safety of workers and the environment. Chemists play a crucial role in assessing risks, implementing safety protocols, and complying with regulations.

5. Analytical Techniques: Analytical chemistry plays a vital role in entrepreneurship and production by providing tools to monitor reaction progress, analyze product purity, and identify impurities. Techniques such as spectroscopy, chromatography, and mass spectrometry are commonly used for quality control and process optimization.

Course Objectives:

Understanding Chemical Principles

To train the students to start their own small/large scale business.

To inculcate the idea of 'Earn while learn'.

To promote "Make in India" concept.

To formulate innovative chemical products that we use every day in our life.

To practice lab to land

To articulate entrepreneurial ventures with finesse, employing creative strategies to cultivate innovation and cultivate novel business models.

Green Chemistry and Sustainability

Instructional Strategies: Theory class, Practical, Video clips, Models etc.

Evaluation Strategies: Oral discussions and Final MCQ examination.

- **Course outline:**

- Brief about Cleaning agents Soaps and detergents(cationic and anionic)
 - Introduction, types (acids, alcohols, aldehydes, alkalis, halogens, phenols)
 - Brief about Hand Sanitizer and its uses
 - Learn about types of Sanitizers and about its Raw Materials
 - Oils, fats and waxes – Introduction and their use in cosmetics
 - Principles of Green Chemistry, bio-enzymes as disinfectants, green cosmetics make up, shampoo, face pack and face mask.
 - Develop sustainable entrepreneurship and investments in green economy
 - To interact with practicing entrepreneurs is an integral part of this course. It is planned to invite at least two entrepreneurs from different fields to interact with the students during the course.
- Attendance in these sessions will be mandatory



Professor

Department of Chemistry
SSES Amt's Science
College Congress Nagar
Nagpur

Course Outcomes (COs):

Chemistry for Entrepreneurship and Production

Program me Outcomes:

Upon Completion of this course, the student will be able:

CO1: To understand importance of chemistry in daily life.

CO2: To develop better understanding and reasoning of facts.

CO3: To skill up various laboratory techniques used in pharmaceutical and chemical industries

CO4: hands on experience for manufacturing industries

Duration of course: Ten weeks (30 Hours)

The Structure of Syllabus and system of evaluation -

Course	Theory Papers and Practical	Total Marks	
		Theory	Practical
Certificate Course in Chemistry For Entrepreneurship And Production	Theory paper- Chemistry For Entrepreneurship And Production Theory examination will be of MCQ pattern having 40 questions, 2 marks each.	80	20
	* Practical examination will be based on performance evaluation in the laboratory	100	

Course Co-ordinator
Professor

Department of Chemistry
SSES Amt's Science
College Congress Nagar
Nagpur

Internal Quality Assurance Cell
(IQAC)

S. S. E. S. A. Science College
Congress Nagar, Nagpur.

Principal

S. S. E. S. Amravati's
Science College, Nagpur.

Certificate Course
in
Chemistry for Entrepreneurship and Production

SYLLABUS
Certificate course (10 weeks)

Unit 1

(6 hrs)

Cleaning agents

Soaps and detergents: Types (cationic and anionic), physical and chemical characteristics, advantages and disadvantages. Classification of detergents, cleaning action of detergents, detergents manufacturing process: stages involved, ingredients, chemical process-spray drying process, Agglomeration, Dry mixing, pH of detergent powder, test for pH, advantages and disadvantages of detergent. Examples of Commercially available cleaning agents (shampoo, hand wash, face-wash)

Unit 2

(6hrs)

Disinfectants

Introduction, types, physical and chemical properties, classification (acids, alcohols, aldehydes, alkalis, halogens, phenols) Sanitizers Sanitizers-Introduction, types, raw material used in making professional hand sanitizer with properties, WHO recommendations for hand sanitizers.

Unit 3

(6 hrs)

Cosmetics

Oils, fats, and waxes - Introduction, physical and chemical properties, their use in cosmetics, Preservatives-Introduction, properties, types and their significance.

Unit 4

(6 hrs)

Transition to Greener approach

Importance and Principles of Green Chemistry, bio-enzymes as disinfectants, green cosmetics make up, shampoo, face pack, face mask, lipsticks. Emerging Trends in Entrepreneurship Development.

Practical:**(6 hrs)**

1.

1. Preparation of Soaps.
2. Preparation of liquid detergent using animal fat.
3. Preparation of Hand-Sanitizers.
4. Preparation of herbal Shampoo, face mask etc.
5. Preparation of cleaning agents using bio-enzymes.

Distribution of marks: -

UNIT I- 20 marks (Theory)

UNIT II- 20 marks(Theory)

UNIT III- 20 marks (Theory)

UNIT III- 20 marks (Theory)+20 (Practicals)

Week-wise teaching plan:

Week	Hrs.	Syllabus
Week 1	1	Introduction to Cleaning Agents and Disinfectants
	2	Basic principles of formulation and production of Detergents
Week 2	1	Chemistry of Disinfectants and sanitizers
	2	Classification (acids, alcohols, aldehydes, alkalis, halogens, phenols) Sanitizers
Week 3	1	Formulation and Production of Sanitizers
	2	Green Chemistry Principles in Cosmetic Production
Week 4	1	Eco-friendly packaging and manufacturing processes
	1	Study of most effective cosmetic active ingredients and their medical effects on skin and hair.
Week 5	1	Formulation considerations: pH balance, viscosity, fragrance
	2	Formulation of Green Cosmetics: Face Mask
Week 6	2	Determination of physico-chemical characteristics of oil and fats 1. Moisture content 2. Acid value 3. Iodine value 4. Saponification reaction and Saponification value from detergents
	1	Green synthesis of cleaning agents, by using bioenzymes
Week 7	2	Importance of quality control in cosmetic production
	1	Recognize various types of cosmetic preparations and

		formulations and the ingredients and active ingredients used in them
Week 8	2	Preparation of Green cosmetics make up, shampoo, face pack, face mask
	1	.The entrepreneurial perspective: Entrepreneurship in Cosmetic Production
Week 9	2	Entrepreneurship in detergents and disinfectant Production
	1	Guest speaker: successful entrepreneurs in the green cosmetics sector
Week 10	1	Preparation for theory paper
	2	Doubt solving class

SSS AMT'S SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR-12

Certificate Course in

Chemistry For Entrepreneurship And Production

Time Table

Day	Theory
Friday	RAD (C7) Theory 4.00 PM – 5.00 PM
Saturday	RAD (C7) Theory, 4.00 PM – 5.00 PM
	RAD(Chemistry Laboratory) Practical, 5.00 PM – 6.00 PM



Professor
Department of Chemistry
SSS Amt's Science
College Congress Nagar
Nagpur

(12)

List of Students enrolled for
Certificate Add-on Course in
"Chemistry for Entrepreneurship and Production"

Sr. No **NAME OF STUDENTS**

- 1) Pranali V. Agarkar
- 2) Atharva R. Ambekar
3. Shradha B. Bagde
4. Ritika V. Balodiya
5. Krunal Bhagat
6. Ruchi Meena
7. Sakshi Mohod
8. Saarthak Norwade
9. Janvi Kene
10. Nikita R. Mesram
11. Shradha Bante
12. Sonali S. Patle
13. Anjuman Mahalk
14. Renuka S. Ayyagari
15. Pranav Lakhe
16. Vinku Moundekar
17. Varun Motwani
18. Nikhita Rmesram
19. Shreyash M. Lakde
20. Katan Kumbhare
21. Munesh R. Chaudhary
22. Pradnya Dof
23. Gargi Junjal
24. Amisha Bilkar

25. Swati F. Dhabekar
26. Sanjayini S. Bhagat
27. Rachna Vinesh Chandankhede
28. Ku. Khushi S. Kanje
29. Tanvi D. Kayastkar
30. Gayatri Kawale
31. Chetna Bhasare
32. Sneha Bhinte
33. Tanvi Bire
34. Kushi R. Behar
35. Vaishnavi Choudhori
36. Geetansh Dhapodkar
37. Anushka Ganvir
38. Divya Goswami
39. Lakshmi Goswami
40. Shreya Gupta
41. Meenalika Kale
42. Harshini Kolhe
43. Harshada Londe
44. Divya Mude
45. Samruddhi Mohod
46. Shreya Patilkar
47. Sahil Behate
48. Poonam Bhakne
49. Tanvi Bhute -

50. Anushka Changole
51. Dhanashree V. Dalal
52. Shrutika Deotale
53. Kautika Dhakate
54. Tanvi R. Deshmukh
55. Pranjal Dhengde
56. Siddhant Gherdige
57. Borse Pranjali
58. Mural Bisen
59. Sneha Bhongade
60. Aditya Bhaeswore
61. Aliya Alem
62. Medyatullah Suhana
63. ~~Pranjal~~ Vasudha Gajbhija
64. Dewesh Agnihotri
65. Tulna Adzokar
66. Kushi Alone
67. Ishika Ambekar
68. Diya Bagde
69. Umakanti Bhagel
70. Sejal Baisore
71. Leena Bagde
72. Anuradha A. Bhagat
73. Payal Chatap
74. Garima Chadokar

- 15
75. Yashree R. Dabel
 76. Rohini Deshmukh
 77. Khushi S. Deshmukh
 78. Manjiri Dhole
 79. Tanishka Warkhade
 80. Avanti Zadgaonkar
 81. Tanushree R. Zunzunekar
 82. Awaari Peshant Karkwade.


Professor

Department of Chemistry
SSES Am's Science
College Congress Nagar
Nagpur

Course Coordinator
S.S.E.S.A.'s Science College
Nagpur

Science College, Congress Nagar, Nagpur.

Name of Teacher :- Dr. R.A. Deshmukh

2022-23

Theory

Certificate course in **Chemistry For Entrepreneurship And Production**

Certificate course in Chemistry For Entrepreneurship And Innovation																												
Sr. No	Roll	Students Full Name	Total upto last		Periods	Total																						
			Month	Del		Att	Date / Contact No.	Current Month																				
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Del	Att	
1	Ku	AGARKAR PRANAL VIJAY			6/01/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
2		AMBEKAR ATHARV RAMBHAU			7/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
3	Ku	BAGDE SHRADDHA BABAN			13/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
4	Ku	BALODIYA RITIKA VISHNU			14/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
5		BHAGAT KRUNAL GAJANAN			20/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
6	Ku	BHAGAT SANJIVANI SAGAR			21/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
7	Ku	BILKAR AMISHA SITARAM			27/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
8	Ku	CHANDANKHEDE RACHANA VINESH			28/1/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
9		CHAUDHARY MUNESH RAVINDRASINGH			3/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
10	Ku	DAF PRADNYA CHANDRAKANT			4/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
11	Ku	DHABEKAR SWATI FATTU			10/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
12	Ku	JAUNJAL GARGI DILIP			11/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
13	Ku	KANOJE KHUSHI SANJAY			17/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
14	Ku	KARKI SRUSHTI SUBHASH			18/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
15	Ku	KAWALE GAYATRI VINOD			24/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
16	Ku	KAYARKAR JANHVI DHIRENDRA			25/2/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
17	Ku	KENE JANVI SUBHASH			3/3/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
18		KUMBHRE KARAN MADHAVRAO			4/3/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
19		LAKDE SHREYASH MAHADEO			9/3/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
20		LAKHE PRANAV BHUPESH			11/3/23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		

Prof
Professor

Department of Chemistry
SSES Arit's Science
College Congress Nagar
Nagpur

Theeey

Science College, Congress Nagar, Nagpur.

Name of Teacher :-

Dr R.A. Deshmukh

2022-23

Certificate course in

Chemistry For Entrepreneurship And Production

Certificate course in										Chemistry For Entrepreneurship And Production											Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Prof. Deshmukh
Department of Chemistry
SSES Am's Science Nagar
Congress Nagar

Treezy

Science College, Congress Nagar, Nagpur.

Name of Teacher :-

2022-23

Certificate course Chemistry For Entrepreneurship And Production

Dr. R. A. Deshmukh

Certificate course										Chemistry For Entrepreneurship And										Total									
Sr. Roll No	Students Full Name	Total upto last Month		Periods																	Current Month		Progressive Month						
		Del	Att		Date / Contact No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Del	Att	Del	Att
41	KALE MRUNALI CHANDRAJEET				6/1/23																								
42	KOLHE HARSHINI ARVIND				7/1/23																								
43	LONDE HARSHADA RAJESH				13/1/23																								
44	MUDE DIVYA SUDHAKAR				14/1/23																								
45	MOHOD SAMRUDDHI SATISH				20/1/23																								
46	PARIHAR SHREYA SUSHISINGH				21/1/23																								
47	BEHATE SAHIL GAJANAN				27/1/23																								
48	BHAKNE POONAM NIRANJAN				28/1/23																								
49	BHUTE JANVI SACHIN				3/2/23																								
50	CHANGOLE ANUSHKA DEVIDAS				4/2/23																								
51	DALAL DHANASHREE VIKAS				10/2/23																								
52	DEOTALE SHRUTIKA DILIP				11/2/23																								
53	DHAKATE KRUTIKA MAHESH				17/2/23																								
54	DESHMUKH TANVI RAJESH				18/2/23																								
55	DHENGRE PRANJAL NARESH				24/2/23																								
56	GHADGE SIDDHANT RAMUJI				25/2/23																								
57	GAJBHIVE VASUDHA VIJAY				3/3/23																								
58	HEDYATULLAH SUHANA				4/3/23																								
59	ADROKAR TULNA DILIP				5/3/23																								
60	AGNIHOTRI DEVESH MAHESH				11/3/23																								

Dr. R. A. Deshmukh
Principal, Science College,
Congress Nagar,
Nagpur

Theory.

Science College, Congress Nagar, Nagpur. Name of Teacher :- Dr. R.A. Deshmukh
 Certificate course in **Chemistry For Entrepreneurship And Production** 2022-23

Sr. Roll No	Students Full Name	Total upto last Month		Periods / Date / Contact No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
		Deli	Att																						Current Month	Progressive Month
61	KU ALONE KHUSHI PRABHUDAS			6/1/23	A	P	A	P	P	P	P	A	A	P	P	A	P	P	P	A	P	A	P	P		
62	KU ALAM ALIYA			7/1/23	P	P	P	A	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
63	KU AMBOLIKAR ISHIKA MANISH			13/1/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
64	KU BAGADE LEENA BABULAL			14/1/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
65	KU BAGADE DIYA DEEPAK			20/1/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
66	KU BAGHEL UMAKANT JAGMOHAN			21/1/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
67	KU BHAISARE SEJAL SUSHIL			27/01/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
68	BHAISWARE ADITYA RAJESH			28/1/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
69	KU BHONGADE SNEHA MANISH			3/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
70	KU BISEN MINAL SHANKAR			4/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
71	KU BORSE PRANALI ANIL			10/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
72	KU KARWADE AWAAANI PRASHANT			11/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
73	KU BHAGAT ANURADHA ARUN			17/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
74	KU CHATAP PAYAL RAMRAO			18/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
75	KU CHADOKAR GARIMA WAMANRAO			24/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
76	KU DALAL YASHREE RAJENDRA			25/2/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
77	KU DESHMUKH ROHINI VINOD			3/3/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
78	KU DESHMUKH KHUSHI SHIVSHANKAR			4/3/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
79	KU DHOLE MANJIRI ANIL			10/3/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		
80	KU WARKHEDE TANISHKA RAMLALI			11/3/23	P	P	A	P	P	P	P	A	P	P	P	A	A	P	P	A	P	A	P	P		

Prof. S. S. Chitambar
 Department of Chemistry
 SSES Amr's Science
 College Congress Nagar
 Nagpur

Practical Jan To March 23

Science College, Congress Nagar, Nagpur.

Name of Teacher :- R.A. Deshmukh

Certificate course in **Chemistry For Entrepreneurship And Production**

2022-23

Sr. No	Roll	Students Full Name	Total upto last Month		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total		
			Deli	Att																					Current Month	Progressive Month	
																										Deli	Att
1	Ku	AGARKAR PRANJAL VIJAY			P	P	P	P	A	P	P	P	P	P													
2		AMBEKAR ATHARV RAMBHAU			P	A	P	P	P	A	P	P	P	P	P												
3	Ku	BAGDE SHRADDHA BABAN			A	P	A	P	A	P	P	P	P	P	P												
4	Ku	BALODIYA RITIKA VISHNU			P	P	P	P	P	A	P	P	P	P	P												
5		BHAGAT KRUNAL GAJANAN			P	A	A	A	P	P	A	P	P	P	P												
6	Ku	BHAGAT SANJIVANI SAGAR			A	P	P	P	P	P	A	P	P	P	P												
7	Ku	BILKAR AMISHA SITARAM			P	P	P	P	A	P	P	P	A	P	P												
8	Ku	CHANDANKHEDE RACHANA VINESH			P	P	P	P	P	P	P	P	P	P	P												
9		CHAUDHARY MUNESH RAVINDRASINGH			A	A	P	A	P	P	P	P	P	P	P												
10	Ku	DAF PRADNYA CHANDRAKANT			P	P	P	P	P	P	P	P	P	P	P												
11	Ku	DHABEKAR SWATI FATTU			P	P	A	P	A	P	P	P	P	P	P												
12	Ku	JAUNJAL GARGI DILIP			A	A	P	A	P	A	P	P	P	P	P												
13	Ku	KANOJE KHUSHI SANJAY			P	P	P	P	P	P	P	P	P	P	P												
14	Ku	KARKI SRUSHTI SUBHASH			P	A	P	P	A	P	P	P	P	P	P												
15	Ku	KAWALE GAYATRI VINOD			A	P	P	A	P	P	P	P	P	P	P												
16	Ku	KAVARKAR JANHVI DHIRENDRA			A	P	A	P	A	P	P	P	P	P	P												
17	Ku	KENE JANVI SUBHASH			P	A	P	P	A	P	P	P	P	P	P												
18		KUMBHRE KARAN MADHAVRAO			P	P	P	P	A	P	P	P	P	P	P												
19		LAKDE SHREYASH MAHADEO			P	P	P	P	P	P	P	P	P	P	P												
20		LAKHE PRANAV BHUPESH			A	A	P	P	A	P	P	P	P	P	P												

[Signature]
 R.A. Deshmukh
 Science College, Congress Nagar, Nagpur

Science College, Congress Nagar, Nagpur.

Name of Teacher :-

R.A. Deshmukh

2022-23

Practical Jan To March 23 Certificate course in

Chemistry For Entrepreneurship And Production

Sr. No	Roll	Students Full Name	Total upto last Month		Periods / Contact No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
			Del	Att																						Current Month	Progressive Month
21	Ku	MEENA RUCHI MAHENDRA				P	P	P	P	P	P	P	P	P	P	P											
22	Ku	MESHRAM NIKHITA RAVIKANT				P	P	P	P	P	P	P	P	P	P	P											
23	Ku	MOHOD SAKSHI SADASHIVRAO				A	A	A	A	A	A	A	A	A	A	A											
24		MOTWANI VARUN DOLAT				P	P	P	P	P	P	P	P	P	P	P											
25	Ku	MOUNDEKAR VINKU MANIK				P	P	P	P	P	P	P	P	P	P	P											
26		NARWADE SARTHAK ARUNRAO				P	A	P	P	P	P	P	P	P	P	P											
27	Ku	PATLE SONALI SURESH				A	P	P	A	P	P	P	P	P	P	P											
28	Ku	MAHEK ANJUM SHAKIR				P	P	P	P	P	P	P	P	P	P	P											
29	Ku	AYYAGARI RENUKA SUDHAKAR				P	P	P	P	P	P	P	P	P	P	P											
30	Ku	BANTE SHRADDHA GUDDU				A	A	P	P	P	P	P	P	P	P	P											
31	Ku	BHAISARE CHETANA DINESH				P	A	P	P	P	P	P	P	P	P	P											
32	Ku	BHIMTE SHRIYA SURENDRA				A	P	P	P	P	P	P	P	P	P	P											
33	Ku	BIRE JAHNAVI MILIND				P	P	P	P	P	P	P	P	P	P	P											
34	Ku	BEHAR KHUSHI RAJU				P	P	P	P	P	P	P	P	P	P	P											
35	Ku	CHOUDHARY VAISHNAVI CHANDRAKANT				A	P	P	A	P	P	P	P	P	P	P											
36		DHAPODKAR GEETANSH SURESH				P	P	P	P	P	P	P	P	P	P	P											
37	Ku	GANVIR ANUSHKA ANIL				P	P	A	P	P	P	P	P	P	P	P											
38	Ku	GOSWAMI DIVYA VIKAS				A	A	P	P	P	P	P	P	P	P	P											
39	Ku	GOSWAMI LAXMI KISHOR				P	P	P	A	P	P	P	P	P	P	P											
40	Ku	GUPTA SHREYA RAVINDRA				P	P	P	P	P	P	P	P	P	P	P											

Keshu Professor

Department of Chemistry
SSES Amle's Science
College Congress Nagar
Nagpur

Practical Jan to March 23

Certificate course

Chemistry For Entrepreneurship And Production

2022-23

Science College, Congress Nagar, Nagpur.

Name of Teacher :-

R. A. Deshmukh

Sr. Roll No	Students Full Name	Total upto last Month		Periods	Date / Contact No.																					Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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41	Ku KALE MRUNALI CHANDRAJEET				7/1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Professor
Department of Chemistry
SSES Amul's Science
Congress Nagar

Name of Teacher :-

R.A. DeBruin

Practical Jan To March 23

Chemistry For Entrepreneurship And Production

10/6/2007
Department of Chemistry
SSES Anti-Social
College Campus, N. 100
100

SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF CHEMISTRY

Certificate course in

Chemistry For Entrepreneurship And Production

Date:16/03/2023

NOTICE

All the admitted students of B.Sc Chemistry are hereby informed that ,for the Certificate course in
“**Chemistry for Entrepreneurship and Production**” theory and Practical examination will be
Scheduled as follows

Sr. no	Exam name	Date	Time	Venue
1	Certificate course in Chemistry For Entrepreneurship And Production (Theory Objective type)	23/03/2023 (Thursday)	12 noon to 1.00pm	Room NoC8
2	Certificate course in Chemistry For Entrepreneurship And Production (Practical)	25/03/2023 (Saturday)	12 noon to 1.00pm	Chemistry Lab

Note: All the students are required to be present at the examination venue at least 30 minutes before the scheduled time. Please ensure you bring your college ID card with you.



Dr. Reshal A. Deshmukh

Coordinator

“Chemistry for Entrepreneurship and Production”

**Dept of Chemistry
Professor
Department of Chemistry
SSES Amt's Science
College Congress Nagar
Nagpur**

DEPARTMENT OF CHEMISTRY

Certificate course Examination 2022-2023



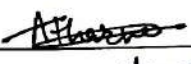

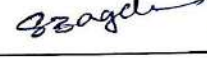



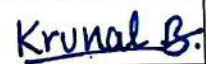

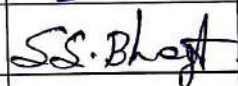
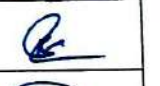
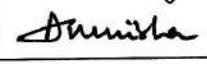

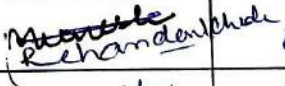

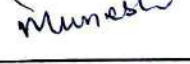


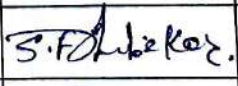



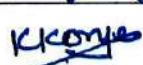



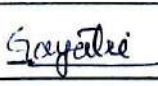



Chemistry For Entrepreneurship And Production

Centre: Shivaji Science College, Nagpur

Date 23/3/2023

Time: 12.00 to 1.00pm

THEORY EXAM ATTENDANCE

Sr.no	Roll no		Name	SIGN	
1	201	Ku	AGARKAR PRANJAL VIJAY		
2	202		AMBEKAR ATHARV RAMBHAU		
3	203	Ku	BAGDE SHRADDHA BABAN		
4	204	Ku	BALODIYA RITIKA VISHNU		
5	205		BHAGAT KRUNAL GAJANAN		
6	206	Ku	BHAGAT SANJIVANI SAGAR		
7	207	Ku	BILKAR AMISHA SITARAM		
8	208	Ku	CHANDANKHEDE RACHANA VINESH		
9	209		CHAUDHARY MUNESH RAVINDRASINGH		
10	210	Ku	DAF PRADNYA CHANDRAKANT	ABSENT	
11	211	Ku	DHABEKAR SWATI FATTU		
12	212	Ku	JAUNJAL GARGI DILIP		
13	213	Ku	KANOJE KHUSHI SANJAY		
14	214	Ku	KARKI SRUSHTI SUBHASH		
15	215	Ku	KAWALE GAYATRI VINOD		
16	216	Ku	KAYARKAR JANHVI DHIRENDRA		



Course Coordinator
S.S.E.S.A.'s Science College
Nagpur

17	217	Ku	KENE JANVI SUBHASH	Jani	RS
18	218		KUMBHRE KARAN MADHAVRAO	Kanar.	RS
19	219		LAKDE SHREYASH MAHADEO	Sh.	RS
20	220		LAKHE PRANAV BHUPESH	Bh.	RS
21	221	Ku	MEENA RUCHI MAHENDRA	Ruchi.	RS
22	222	Ku	MESHRAM NIKHITA RAVIKANT	NZ.	RS
23	223	Ku	MOHOD SAKSHI SADASHIVRAO	Sak.	RS
24	224		MOTWANI VARUN DOLAT	Var.	RS
25	225	Ku	MOUNDEKAR VINKU MANIK	Vink.	RS
26	226		NARWADE SARTHAK ARUNRAO	Sark.	RS
27	227	Ku	PATLE SONALI SURESH	Sonali.	RS
28	228	Ku	MAHEK ANJUM SHAKIR	ABSENT	RS
29	229	Ku	AYYAGARI RENUKA SUDHAKAR	RS.	RS
30	230	Ku	BANTE SHRADDHA GUDDU	Sh.	RS
31	231	Ku	BHAISARE CHETANA DINESH	Chet.	RS
32	232	Ku	BHIMTE SHRIYA SURENDRA	Shriya B.	RS
33	233	Ku	BIRE JAHNAVI MILIND	Jm.	RS
34	234	Ku	BEHAR KHUSHI RAJU	Khushi.	RS
35	235	Ku	CHOUDHARY VAISHNAVI CHANDRAKANT	ABSENT	RS
36	236		DHAPODKAR GEETANSH SURESH	Ge.	RS
37	237	Ku	GANVIR ANUSHKA ANIL	Anu.	RS
38	238	Ku	GOSWAMI DIVYA VIKAS	Div.	RS
39	239	Ku	GOSWAMI LAXMI KISHOR	Kish.	RS
40	240	Ku	GUPTA SHREYA RAVINDRA	Shriya.	RS


Course Coordinator
S.S.E.S.A.'s Science College
Nagpur

41	241	Ku	KALE MRUNALI CHANDRAJEET	M. Kale.	48
42	242	Ku	KOLHE HARSHINI ARVIND	H. Kolhe	48
43	243	Ku	LONDE HARSHADA RAJESH	H. R. Londe	48
44	244	Ku	MUDE DIVYA SUDHAKAR	D. Mudde	48
45	245	Ku	MOHOD SAMRUDDHI SATISH	S. Mohod	48
46	246	Ku	PARIHAR SHREYA SUSHISINGH	P. Parihar	48
47	247		BEHATE SAHIL GAJANAN	S. Behate	48
48	248	Ku	BHAKNE POONAM NIRANJAN	P. N. Bhakne	48
49	249	Ku	BHUTE JANVI SACHIN	J. Bhute	48
50	250	Ku	CHANGOLE ANUSHKA DEVIDAS	A. Changole	48
51	251	Ku	DALAL DHANASHREE VIKAS	D. V. Dalal	48
52	252	Ku	DEOTALE SHRUTIKA DILIP	S. Deotale	48
53	253	Ku	DHAKATE KRUTIKA MAHESH	K. Dhakate	48
54	254	Ku	DESHMUKH TANVI RAJESH	T. Deshmukh	48
55	255		DHENGRE PRANJAL NARESH	P. Dhengre	48
56	256		GHADGE SIDDHANT RAMUJI	S. Ghadge	48
57	257	Ku	GAJBHIYE VASUDHA VIJAY	V. Gajbhiye	48
58	258	Ku	HEDYATULLAH SUHANA	S. Hedyatullah	48
59	259	Ku	ADROKAR TULNA DILIP	T. Adrokar	48
60	260		AGNIHOTRI DEVESH MAHESH	D. Agnihotri	48
61	261	Ku	ALONE KHUSHI PRABHUDAS	K. Alone	48
62	262	Ku	ALAM ALIYA	A. Alam	48
63	263	Ku	AMBOLIKAR ISHIKA MANISH	M. Ambolikar	48
64	264	Ku	BAGADE LEENA BABULAL	L. Bagade	48



Course Coordinator
S.S.E.S.A.'s Science College
Nagpur

65	265	Ku	BAGADE DIYA DEEPAK	Diya B.	RS
66	266	Ku	BAGHEL UMAKANTI JAGMOHAN	Quj.	RS
67	267	Ku	BHAISARE SEJAL SUSHIL	Bhasee	RS
68	268		BHAISWARE ADITYA RAJESH	Bhasee Aditya	RS
69	269	Ku	BHONGADE SNEHA MANISH	Sneha.	RS
70	270	Ku	BISEN MINAL SHANKAR	Mine	RS
71	271	Ku	BORSE PRANALI ANIL	Pranali.	RS
72	272	Ku	BHAGAT ANURADHA ARUN	Anuradha	RS
73	273	Ku	CHATAP PAYAL RAMRAO	Payal.	RS
74	274	Ku	CHADOKAR GARIMA WAMANRAO	Garima	RS
75	275	Ku	DALAL YASHREE RAJENDRA	Yash	RS
76	276	Ku	DESHMUKH ROHINI VINOD	Deshmukh	RS
77	277	Ku	DESHMUKH KHUSHI SHIVSHANKAR	Khushi.	RS
78	278	Ku	DHOLE MANJIRI ANIL	Dhol.	RS
79	279	Ku	WARKHEDE TANISHKA RAMLALI	Tanika.	RS
80	280	Ku	ZADGAONKAR AVANTI ANIRUDHA	Z.	RS
81	281	Ku	ZUNZUNKAR TANUSHREE RAMBHAU	Zunzkar	RS
82	282	Ku	KARWADE AWAANI PRASHANT	Q.	RS
81	201	Ku	ZUNZUNKAR TANUSHREE RAMBHAU	Tanushree	RS
82	202	Ku	KARWADE AWAANI PRASHANT	Karwaale A.P.	RS



Course Coordinator
S.S.E.S.A.'s Science College
S.E. 100/100

DEPARTMENT OF CHEMISTRY

Certificate course Examination 2022-2023

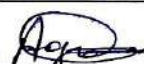



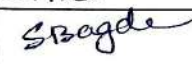



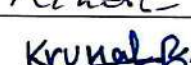

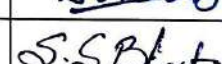

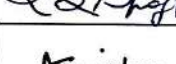

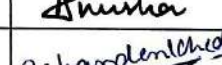

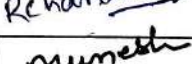


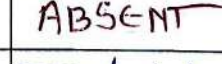





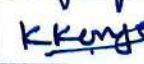



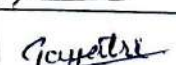

Chemistry For Entrepreneurship And Production

Centre: Shivaji Science College, Nagpur

Date 25/3/2023

Time: 12.00 to 1.00pm

PRACTICAL EXAM ATTANDANCE

Sr.no	Roll no		Name	SIGN	
1	201	Ku	AGARKAR PRANJAL VIJAY		
2	202		AMBEKAR ATHARV RAMBHAU		
3	203	Ku	BAGDE SHRADDHA BABAN		
4	204	Ku	BALODIYA RITIKA VISHNU		
5	205		BHAGAT KRUNAL GAJANAN		
6	206	Ku	BHAGAT SANJIVANI SAGAR		
7	207	Ku	BILKAR AMISHA SITARAM		
8	208	Ku	CHANDANKHEDE RACHANA VINESH		
9	209		CHAUDHARY MUNESH RAVINDRASINGH		
10	210	Ku	DAF PRADNYA CHANDRAKANT	ABSENT	
11	211	Ku	DHABEKAR SWATI FATTU		
12	212	Ku	JAUNJAL GARGI DILIP		
13	213	Ku	KANOJE KHUSHI SANJAY		
14	214	Ku	KARKI SRUSHTI SUBHASH		
15	215	Ku	KAWALE GAYATRI VINOD		
16	216	Ku	KAYARKAR JANHVI DHIRENDRA		


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Nagpur

17	217	Ku	KENE JANVI SUBHASH	Jani	RS
18	218		KUMBHRE KARAN MADHAVRAO	Karan.	RS
19	219		LAKDE SHREYASH MAHADEO	Shy.	RS
20	220		LAKHE PRANAV BHUPESH	Pranav.	RS
21	221	Ku	MEENA RUCHI MAHENDRA	Ruchi.	RS
22	222	Ku	MESHRAM NIKHITA RAVIKANT	Nikhita.	RS
23	223	Ku	MOHOD SAKSHI SADASHIVRAO	Sakshi.	RS
24	224		MOTWANI VARUN DOLAT	Varun.	RS
25	225	Ku	MOUNDEKAR VINKU MANIK	Vinku.	RS
26	226		NARWADE SARTHAK ARUNRAO	Sarthak.	RS
27	227	Ku	PATLE SONALI SURESH	Sonali.	RS
28	228	Ku	MAHEK ANJUM SHAKIR	ABSENT	RS
29	229	Ku	AYYAGARI RENUKA SUDHAKAR	Renuka.	RS
30	230	Ku	BANTE SHRADDHA GUDDU	Shraddha.	RS
31	231	Ku	BHAISARE CHETANA DINESH	Chetana.	RS
32	232	Ku	BHIMTE SHRIYA SURENDRA	Shriya B.	RS
33	233	Ku	BIRE JAHAVI MILIND	Milind.	RS
34	234	Ku	BEHAR KHUSHI RAJU	Khushi.	RS
35	235	Ku	CHOUDHARY VAISHNAVI CHANDRAKANT	ABSENT	RS
36	236		DHAPODKAR GEETANSH SURESH	Geetansh.	RS
37	237	Ku	GANVIR ANUSHKA ANIL	Anushka.	RS
38	238	Ku	GOSWAMI DIVYA VIKAS	Divya.	RS
39	239	Ku	GOSWAMI LAXMI KISHOR	Laxmi.	RS
40	240	Ku	GUPTA SHREYA RAVINDRA	Shreya.	RS


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41	241	Ku	KALE MRUNALI CHANDRAJEET	McKale	(18)
42	242	Ku	KOLHE HARSHINI ARVIND	HA Kolhe	(18)
43	243	Ku	LONDE HARSHADA RAJESH	H. R. Londe	(18)
44	244	Ku	MUDE DIVYA SUDHAKAR	Divya	(18)
45	245	Ku	MOHOD SAMRUDDHI SATISH	Smohod	(18)
46	246	Ku	PARIHAR SHREYA SUSHISINGH	Parihar	(18)
47	247		BEHATE SAHIL GAJANAN	S. Behate	(18)
48	248	Ku	BHAKNE POONAM NIRANJAN	Poonam	(18)
49	249	Ku	BHUTE JANVI SACHIN	Janvi	(18)
50	250	Ku	CHANGOLE ANUSHKA DEVIDAS	Anushka	(18)
51	251	Ku	DALAL DHANASHREE VIKAS	D. V. Dalal	(18)
52	252	Ku	DEOTALE SHRUTIKA DILIP	Shrutika	(18)
53	253	Ku	DHAKATE KRUTIKA MAHESH	Krutika	(18)
54	254	Ku	DESHMUKH TANVI RAJESH	Tanvi	(18)
55	255		DHENGRE PRANJAL NARESH	Pranjal	(18)
56	256		GHADGE SIDDHANT RAMUJI	S. G.	(18)
57	257	Ku	GAJBHIYE VASUDHA VIJAY	Vasudha	(18)
58	258	Ku	HEDYATULLAH SUHANA	Suhana	(18)
59	259	Ku	ADROKAR TULNA DILIP	Tulna	(18)
60	260		AGNIHOTRI DEVESH MAHESH	Devash	(18)
61	261	Ku	ALONE KHUSHI PRABHUDAS	Khushi	(18)
62	262	Ku	ALAM ALIYA	Aliya	(18)
63	263	Ku	AMBOLIKAR ISHIKA MANISH	Ishika	(18)
64	264	Ku	BAGADE LEENA BABULAL	Leena	(18)


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65	265	Ku	BAGADE DIYA DEEPAK	Diya B.	RS
66	266	Ku	BAGHEL UMAKANTI JAGMOHAN	B. U. T.	RS
67	267	Ku	BHAISARE SEJAL SUSHIL	Bha. Sore.	RS
68	268		BHAISWARE ADITYA RAJESH	Aditya	RS
69	269	Ku	BHONGADE SNEHA MANISH	Sheha.	RS
70	270	Ku	BISEN MINAL SHANKAR	Misra	RS
71	271	Ku	BORSE PRANALI ANIL	Pranali.	M
72	272	Ku	BHAGAT ANURADHA ARUN	Anura. Bha.	RS
73	273	Ku	CHATAP PAYAL RAMRAO	Payal.	RS
74	274	Ku	CHADOKAR GARIMA WAMANRAO	Garima	RS
75	275	Ku	DALAL YASHREE RAJENDRA	Yashree	RS
76	276	Ku	DESHMUKH ROHINI VINOD	Rohini	RS
77	277	Ku	DESHMUKH KHUSHI SHIVSHANKAR	Khushi	RS
78	278	Ku	DHOLE MANJIRI ANIL	Dhole.	RS
79	279	Ku	WARKHEDE TANISHKA RAMLALI	Tanika.	RS
80	280	Ku	ZADGAONKAR AVANTI ANIRUDHA	Avanti	RS
81	281	Ku	ZUNZUNKAR TANUSHREE RAMBHAU	Tanushree	RS
82	282	Ku	KARWADE AWAANI PRASHANT	Prashant	RS
81	201	Ku	ZUNZUNKAR TANUSHREE RAMBHAU	Tanushree	RS
82	202	Ku	KARWADE AWAANI PRASHANT	Karwade A.P.	RS



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S.S.E.S.A.'s Science College
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SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF CHEMISTRY

Certificate course in

Chemistry For Entrepreneurship And Production

Theory Examination

Date: 23/03/2023

Max Marks: 80

Time: 12:00 am to 1:00 pm

Roll No :

Name of Student:

Note: 1. All questions are compulsory and carry equal marks
2. Tick only one correct option

1. Which of the following microorganisms are effectively killed by sanitizers?
 - a) Viruses
 - b) Bacteria
 - c) Fungi
 - d) All of the above

2. Which type of disinfectant is typically used for cleaning non-porous surfaces such as countertops and floors?
 - a) Quaternary Ammonium Compounds (Quats)
 - b) Alcohol-based disinfectants
 - c) Chlorine-based disinfectants
 - d) Phenolic disinfectants

3. Which of the following is a recommended concentration of alcohol in alcohol-based hand sanitizers for effective disinfection?

- a) 30-40%
- b) 50-60%
- c) 70-80%
- d) 90-100%

4. Which of the following factors can affect the effectiveness of a disinfectant?

- a) Concentration of the disinfectant
- b) Contact time
- c) pH of the solution
- d) All of the above

5. Which type of disinfectant is commonly used for disinfecting medical instruments and equipment?

- a) Aldehydes
- b) Quaternary Ammonium Compounds (Quats)
- c) Phenolic disinfectants
- d) Halogens

6. What is the primary mode of action of disinfectants against microorganisms?

- a) Inhibition of cell wall synthesis
- b) Disruption of cell membrane integrity
- c) Inhibition of protein synthesis
- d) Inhibition of nucleic acid synthesis

7. Which of the following is a disadvantage of using chlorine-based disinfectants?

- a) Residual antimicrobial activity
- b) Corrosive to metals
- c) Compatible with all surfaces
- d) Stable in the presence of organic matter

8. Which type of disinfectant is effective against bacterial spores?

- a) Alcohols
- b) Quaternary Ammonium Compounds (Quats)
- c) Phenolic disinfectants
- d) Halogens

9. What is the recommended contact time for most disinfectants to effectively kill microorganisms?

- a) 5-10 seconds
- b) 1-2 minutes
- c) 5-10 minutes
- d) 30 minutes

10. What is the primary function of surfactants in detergents?

- a) Enhancing fragrance
- b) Reducing surface tension
- c) Providing color
- d) Increasing viscosity

11. Which of the following is a common type of surfactant used in detergents?

- a) Sodium chloride
- b) Sodium hydroxide

d) Sodium bicarbonate

12. What type of charge do most surfactants have in aqueous solutions?

- a) Positive
- b) Negative
- c) Neutral
- d) Variable

13. Which type of detergent is known for its ability to clean effectively in both hard and soft water?

- a) Anionic detergents
- b) Cationic detergents
- c) Non-ionic detergents
- d) Amphoteric detergents

14. What component of detergents is responsible for breaking down and removing stains?

- a) Builders
- b) Surfactants
- c) Bleaching agents
- d) Enzymes

15. Which of the following is NOT a primary function of detergents?

- a) Emulsification
- b) Disinfection
- c) Soil suspension
- d) Wetting

16. What is the role of builders in detergents?

- a) Enhancing fragrance
- b) Reducing surface tension
- c) Sequestering metal ions in hard water
- d) Increasing viscosity

17. Which environmental concern is associated with the use of phosphates in detergents?

- a) Air pollution
- b) Water pollution
- c) Soil erosion
- d) Deforestation

18. Which of the following is a characteristic of anionic surfactants commonly used in detergents?


- a) Positively charged head
- b) Hydrophobic tail
- c) Negatively charged head
- d) Non-polar structure

19. What is the primary mode of action of surfactants in detergents?

- a) Inhibition of cell wall synthesis
- b) Disruption of cell membrane integrity
- c) Inhibition of protein synthesis
- d) Inhibition of nucleic acid synthesis

20. What is the primary advantage of using bioenzymes as disinfectants?

- a) They are inexpensive to produce
- b) They are highly toxic to humans


Professor
Department of Chemistry
SSES Am's Science
College Congress Nagar
Mangalore

Answer Key

1. Answer: d) All of the above
2. Answer: c) Chlorine-based disinfectants
3. Answer: c) Chlorine-based disinfectants
4. Answer: d) All of the above
5. Answer: a) Aldehyde
6. Answer: b) Disruption of cell membrane integrity
7. Answer: b) Corrosive to metals
8. Answer: d) Halogens
9. Answer: b) 1-2 minutes
10. Answer: b) Reducing surface tension
11. Answer: c) Sodium lauryl sulfate
12. Answer: d) Variable
13. Answer: c) Non-ionic detergents
14. Answer: d) Enzymes
15. Answer: b) Disinfection
16. Answer: c) Sequestering metal ions in hard water
17. Answer: b) Water pollution
18. Answer: c) Negatively charged head
19. Answer: b) Disruption of cell membrane integrity
20. Answer: c) They are effective against a wide range of microorganisms
21. Answer: b) Fermentation using microbial cultures
22. Answer: c) They break down organic matter and disrupt microbial cell walls
23. Answer: a) Protease
24. Answer: a) Proteins
25. Answer: c) Neutral pH and aerobic conditions
26. Answer: b) Bioenzymes have a lower environmental impact
27. Answer: d) Bioenzymes are less harmful to surfaces and materials
28. Answer: d) All of the above
29. Answer: a) By reducing the need for harsh chemicals
30. Answer: b) Minimizing environmental impact
31. Answer: c) Avoidance of animal testing
32. Answer: c) Environmental sustainability
33. Answer: d) All of the above
34. Answer: b) Extending shelf life
35. Answer: c) Synthetic dyes
36. Answer: c) Moisturizing and softening the skin
37. Answer: d) All of the above
38. Answer: c) USDA Organic
39. Answer: c) By meeting demand for natural and organic products
40. Answer: c) Ethanol or isopropyl alcohol



Professor
Department of Chemistry
SSES Amt's Science
College Congress Nagar
Nagpur

SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF CHEMISTRY

Certificate course in

Chemistry For Entrepreneurship And Production

Practical Examination

Date: 25/03/2023

Max Marks: 20

Time: 12:00noon to1:00pm

Roll No:

Name of Student:

Perform any one----- 10 mks


Practical 1 : Preparation of Detergent using various ingredients.

Practical 2: Mixing of all the composition of raw materials and prepare Sanitizer.

Practical 3: To prepare floor cleaner by using various raw material.


Practical 4: To prepare herbal Shampoo

Viva-voce -----10mks


Professor
Department of Chemistry
SSES Am's Science
College Congress Nagar
Nagpur

Sses Amt's Science College, Congress Nagar, Nagpur.
CERTIFICATE COURSE IN
CHEMISTRY FOR ENTREPRENEURSHIP AND PRODUCTION
 THEORY EXAMINATION BASED ON M.C.Q. TYPE QUESTIONS, **23** MARCH 2023
 OMR SHEET

Roll No 230

Signature Of Coordinator.....

TICK ✓ ON WRITE ANSWER
 (TIME- 1 HOUR)

QUESTION NO.	OPTIONS			
✓ QUE.1	a	b	c	d ✓
✓ QUE.2	a	b	c ✓	d
✓ QUE.3	a	b	c ✓	d
✓ QUE.4	a	b	c	d ✓
✓ QUE.5	a ✓	b	c	d
✓ QUE.6	a	b ✓	c	d
✓ QUE.7	a	b ✓	c	d
✓ QUE.8	a	b	c	d ✓
✓ QUE.9	a ✓	b	c	d
✓ QUE.10	a	b ✓	c	d
✓ QUE.11	a	b	c ✓	d
✓ QUE.12	a	b	c	d ✓
✓ QUE.13	a	b	c ✓	d
✓ QUE.14	a	b ✓	c	d
✓ QUE.15	a ✓	b	c	d
✓ QUE.16	a	b	c ✓	d
✓ QUE.17	a	b ✓	c	d
✓ QUE.18	a	b	c ✓	d
✓ QUE.19	a	b ✓	c	d
✓ QUE.20	a	b	c ✓	d
✓ QUE.21	a ✓	b	c	d
✓ QUE.22	a	b	c ✓	d
✓ QUE.23	a ✓	b	c	d
✓ QUE.24	a ✓	b	c	d
✓ QUE.25	a	b	c ✓	d
✓ QUE.26	a	b ✓	c	d
✓ QUE.27	a	b	c	d ✓
✓ QUE.28	a	b	c	d ✓
✓ QUE.29	a	b ✓	c	d
✓ QUE.30	a	b ✓	c	d
✓ QUE.31	a	b	c ✓	d
✓ QUE.32	a	b	c	d ✓
✓ QUE.33	a	b	c	d ✓
✓ QUE.34	a	b ✓	c	d
✓ QUE.35	a	b	c ✓	d
✓ QUE.36	a ✓	b	c	d
✓ QUE.37	a	b	c	d ✓
✓ QUE.38	a	b	c ✓	d
✓ QUE.39	a	b	c ✓	d
✓ QUE.40	a ✓	b	c	d
✓ QUE.41	a	b	c	d

62
80

31
40

Sses Amt's Science College, Congress Nagar, Nagpur.
CERTIFICATE COURSE IN
CHEMISTRY FOR ENTREPRENEURSHIP AND PRODUCTION
 THEORY EXAMINATION BASED ON M.C.Q. TYPE QUESTIONS, 27 MARCH 2023
 OMR SHEET

Roll No 224

Signature Of Coordinator..... R.S. Sharma

TICK ✓ ON WRITE ANSWER
 (TIME- 1 HOUR)

40
80

20
40

QUESTION NO.	OPTIONS			
✓ QUE.1	a	b ✓	c	d
✓ QUE.2	a	b	c ✓	d
✗ QUE.3	a ✓	b	c	d
✗ QUE.4	a	b ✓	c	d
✓ QUE.5	a ✓	b	c	d
✗ QUE.6	a	b	c	d ✓
✓ QUE.7	a	b ✓	c	d
✗ QUE.8	a	b	c ✓	d
✗ QUE.9	a	b	c	d ✓
✓ QUE.10	a	b ✓	c	d
✓ QUE.11	a	b	c ✓	d
✓ QUE.12	a	b	c	d ✓
✓ QUE.13	a	b	c ✓	d
✗ QUE.14	a	b ✓	c	d
✗ QUE.15	a ✓	b	c	d
✓ QUE.16	a	b	c ✓	d
✓ QUE.17	a	b ✓	c	d
✗ QUE.18	a ✓	b	c	d
✗ QUE.19	a	b	c	d ✓
✓ QUE.20	a	b ✓	c	d
✓ QUE.21	a	b ✓	c	d
✓ QUE.22	a	b	c ✓	d
✓ QUE.23	a ✓	b	c	d
✗ QUE.24	a	b	c	d ✓
✗ QUE.25	a	b	c ✓	d
✗ QUE.26	a ✓	b	c	d
✗ QUE.27	a ✓	b	c	d
✗ QUE.28	a	b ✓	c	d
✓ QUE.29	a ✓	b	c	d
✗ QUE.30	a	b	c ✓	d
✓ QUE.31	a	b	c ✓	d
✗ QUE.32	a	b	c	d ✓
✓ QUE.33	a	b	c	d ✓
✓ QUE.34	a	b ✓	c	d
✓ QUE.35	a	b	c ✓	d
✗ QUE.36	a ✓	b	c	d
✓ QUE.37	a	b	c	d ✓
✗ QUE.38	a	b ✓	c	d
✓ QUE.39	a	b	c ✓	d
✓ QUE.40	a	b	c ✓	d
✓ QUE.41	a	b	c	d

SSES Amravati's Science College, Congress Nagar, Nagpur-12

DEPARTMENT OF CHEMISTRY

Certificate Course In

Chemistry for Entrepreneurship and Production (30Hrs)

Result Sheet


2022-2023

Sr. No.	Roll No.		Name of Student	Theory	Practical	Total	Grade
				80	20	100	
1	201	Ku	AGARKAR PRANJAL VIJAY	45	15	60	B
2	202		AMBEKAR ATHARV RAMBHAU	54	16	70	B+
3	203	Ku	BAGDE SHRADDHA BABAN	48	16	64	B+
4	204	Ku	BALODIYA RITIKA VISHNU	78	18	96	O
5	205		BHAGAT KRUNAL GAJANAN	56	17	73	A
6	206	Ku	BHAGAT SANJIVANI SAGAR	68	19	87	A+
7	207	Ku	BILKAR AMISHA SITARAM	58	20	78	A
8	208	Ku	CHANDANKHEDE RACHANA VINESH	44	18	62	B+
9	209		CHAUDHARY MUNESH RAVINDRASINGH	58	20	78	A
10	210	Ku	DAF PRADNYA CHANDRAKANT	AA	AA	AA	AA
11	211	Ku	DHABEKAR SWATI FATTU	50	16	66	B+
12	212	Ku	JAUNJAL GARGI DILIP	78	15	93	O
13	213	Ku	KANOJE KHUSHI SANJAY	66	16	82	A+
14	214	Ku	KARKI SRUSHTI SUBHASH	54	19	73	A
15	215	Ku	KAWALE GAYATRI VINOD	48	15	63	B+
16	216	Ku	KAYARKAR JANHVI DHIRENDRA	52	16	68	B+
17	217		KENE JANVI SUBHASH	46	18	64	B+
18	218	Ku	KUMBHRE KARAN MADHAVRAO	65	17	82	A+
19	219	Ku	LAKDE SHREYASH MAHADEO	58	20	78	A

20	220		LAKHE PRANAV BHUPESH	40	19	59	B
21	221	Ku	MEENA RUCHI MAHENDRA	46	19	65	B+
22	222	Ku	MESHAM NIKHITA RAVIKANT	58	15	73	A
23	223	Ku	MOHOD SAKSHI SADASHIVRAO	78	17	95	O
24	224		MOTWANI VARUN DOLAT	40	16	56	B
25	225	Ku	MOUNDEKAR VINKU MANIK	48	18	66	B+
26	226	Ku	NARWADE SARTHAK ARUNRAO	40	19	59	B
27	227	Ku	PATLE SONALI SURESH	56	20	76	A
28	228	Ku	MAHEK ANJUM SHAKIR	AA	AA	AA	AA
29	229	Ku	AYYAGARI RENUKA SUDHAKAR	54	16	70	B+
30	230	Ku	BANTE SHRADDHA GUDDU	62	15	77	A
31	231	Ku	BHAISARE CHETANA DINESH	40	18	58	B
32	232		BHIMTE SHRIYA SURENDRA	48	20	68	B+
33	233	Ku	BIRE JAHNAVI MILIND	78	17	95	O
34	234	Ku	BEHAR KHUSHI RAJU	72	19	91	O
35	235		CHOUDHARY VAISHNAVI CHANDRAKANT	AA	AA	AA	AA
36	236	Ku	DHAPODKAR GEETANSH SURESH	44	18	62	B+
37	237	Ku	GANVIR ANUSHKA ANIL	52	15	67	B+
38	238	Ku	GOSWAMI DIVYA VIKAS	64	19	83	A+
39	239	Ku	GOSWAMI LAXMI KISHOR	70	17	87	A+
40	240	Ku	GUPTA SHREYA RAVINDRA	46	15	61	B+
41	241	Ku	KALE MRUNALI CHANDRAJEET	54	16	70	B+
42	242	Ku	KOLHE HARSHINI ARVIND	48	20	68	B+
43	243	Ku	LONDE HARSHADA RAJESH	74	15	89	A+
44	244	Ku	MUDE DIVYA SUDHAKAR	48	18	66	B+
45	245	Ku	MOHOD SAMRUDDHI SATISH	44	17	61	B+
46	246	Ku	PARIHAR SHREYA SUSHISINGH	68	16	84	A+

47	247		BEHATE SAHIL GAJANAN	60	19	79	A
48	248	Ku	BHAKNE POONAM NIRANJAN	52	17	69	B+
49	249	Ku	BHUTE JANVI SACHIN	70	20	90	A+
50	250	Ku	CHANGOLE ANUSHKA DEVIDAS	42	15	57	B
51	251	Ku	DALAL DHANASHREE VIKAS	54	18	72	A
52	252	Ku	DEOTALE SHRUTIKA DILIP	50	15	65	B+
53	253	Ku	DHAKATE KRUTIKA MAHESH	76	17	93	O
54	254	Ku	DESHMUKH TANVI RAJESH	78	19	97	O
55	255		DHENGRE PRANJAL NARESH	52	16	68	B+
56	256		GHADGE SIDDHANT RAMUJI	66	20	86	A+
57	257	Ku	GAJBHIYE VASUDHA VIJAY	46	15	61	B+
58	258	Ku	HEDYATULLAH SUHANA	42	16	58	B
59	259	Ku	ADROKAR TULNA DILIP	58	15	73	A
60	260		AGNIHOTRI DEVESH MAHESH	76	17	93	O
61	261	Ku	ALONE KHUSHI PRABHUDAS	40	16	56	B
62	262	Ku	ALAM ALIYA	52	19	71	A
63	263	Ku	AMBOLIKAR ISHIKA MANISH	46	18	64	B+
64	264	Ku	BAGADE LEENA BABULAL	72	16	88	A+
65	265	Ku	BAGADE DIYA DEEPAK	66	20	86	A+
66	266	Ku	BAGHEL UMAKANTI JAGMOHAN	58	17	75	A
67	267	Ku	BHAISARE SEJAL SUSHIL	54	18	72	A
68	268		BHAISWARE ADITYA RAJESH	72	16	88	A+
69	269	Ku	BHONGADE SNEHA MANISH	68	15	83	A+
70	270	Ku	BISEN MINAL SHANKAR	58	20	78	A
71	271	Ku	BORSE PRANALI ANIL	78	18	96	O
72	272	Ku	BHAGAT ANURADHA ARUN	68	17	55	B
73	273	Ku	CHATAP PAYAL RAMRAO	50	19	69	B+
74	274	Ku	CHADOKAR GARIMA WAMANRAO	42	15	57	B

75	275	Ku	DALAL YASHREE RAJENDRA	70	16	86	A+
76	276	Ku	DESHMUKH ROHINI VINOD	58	17	75	A
77	277	Ku	DESHMUKH KHUSHI SHIVSHANKAR	46	15	61	B+
78	278	Ku	DHOLE MANJIRI ANIL	40	18	58	B
79	279	Ku	WARKHEDE TANISHKA RAMLALJI	58	17	75	A
80	280	Ku	ZADGAONKAR AVANTI ANIRUDHA	60	16	76	A
81	281	Ku	ZUNZUNKAR TANUSHREE RAMBHAU	72	18	90	A+
82	282	Ku	KARWADE AWAANI PRASHANT	48	19	67	B+


 Professor
 Department of Chemistry
 SSES Amt's Science
 College Congress Nagar
 Nagpur



Shri Shivaji Education Society Amravati's
**SCIENCE COLLEGE, CONGRESS NAGAR,
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A College with Potential for Excellence



CERTIFICATE

Mr./Ku. Pranjod V. Agarkar is awarded with certificate on successful completion of the course entitled, Certificate course in "Chemistry for Entrepreneurship and Production".

Session 2022-23 under Add-on course conducted for 30 hours from 06/01/2023 to 11/03/2023 by Department of Chemistry, SSES's, Science College, congress Nagar, Nagpur 440012.

He/She has passed the Examination with **B** Grade.

Dr. R. A. Deshmukh
Coordinator, Department of Chemistry

Prof. M. P. Dhore
Principal, Science College, Nagpur

S.S.E.S. Amravati's Science College, Nagpur

DEPARTMENT OF Chemistry

Report

on

ADD-ON COURSE

in

"Chemistry For Entrepreneurship And Production".

Academic Year: 2022-23

6 Jan 2023 to 11 March 2023

Chemistry For Entrepreneurship And Production

Report

One of the major hindrances in the growth of any country is unemployment. It is not only one of the major obstacles in the country's economic growth but also has several other negative repercussions on the individual as well as the society as a whole. In order to resolve the problem of unemployment and to improve the skills of the students, various departments of Science College Nagpur, put forward the notion of Add-on course programme. Chemistry department conducted job oriented Add-on course on Production of house hold chemicals like soaps, detergents, liquid soap, hand wash green cosmetics etc. The add -on course was started from 6th January 2023 to 11th March 2023 (10week) .Total 82 students from different department have participated in this course.

On the first session, training started with an introduction to health and safety in a chemical processing area, followed by the presentation of handling of hazardous chemicals, as well as product quality and later on, different practical were conducted on manufacturing of cleaning detergent, sanitizers, cosmetics etc and showed how to formulate your own formulation for your product and when to increase or decrease the active matter in the product.

The student were explained how to become a successful entrepreneur. The capacity and willingness of the individual is the secret behind the victory.

Small video clips were also shown to students on motivational speaker and a career councilor; they explained the major concepts about entrepreneurship and taught the students how to become a successful entrepreneur.

At the end of the course, theory exam with MCQ based question of 80 marks was conducted on 23rd March 2023. Also Practical exam of students for 20 marks was conducted on 25th March 2023. After successfully completion of certificate course, students were awarded with Certificates.

Action Taken Report

Total 80 students were benefitted by this course in **Chemistry for Entrepreneurship and Production** and it was very helpful to expand their Entrepreneurship knowledge and skills. It also encouraged their innovation by bringing new ideas, products and services to the market.

SSES Amti's Science College Congress Nagar Nagpur

**Certificate course in
Chemistry For Entrepreneurship And Production**

Department of Chemistry

2022-23 (Batch-1)

6 Jan 2023 to 11 March 2023

Feedback Analysis

1. Numbered of students enrolled for the certificate course-**82**
2. Number of students successfully completed the certificate course-**78**
3. Number of students successfully submitted feedback -**77**

S N	Question	Students Number wise Responses		
1	Rating	Yes	No	May Be
	1. Did the course improve the students skills	75	02	--
2	Rating	Yes	No	May Be
	2. Did the training meet your expectations?	76	01	--
3	Rating	Yes	No	May Be
	3. Was the overall quality of this certificate course beneficial to you	74	03	01
4	Rating	Yes	No	May Be
	4. Were you satisfied with the learning content and material?	74	01	02
5.	Rating	Yes	No	May Be
	5. Is this a need of hour	70	02	05

Graphical Representation

