



Shri Shivaji Education Society, Amravati

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 2022-2023

Free Certificate Course for College Students

Course Title: Certificate Course in

"Chemistry For Entrepreneurship And Production".

Duration-30 Hours (10 Weeks)

Course Start from 05 August 2022 to 08 October 2022

Course Coordinator: Dr. R.A. Deshmukh

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

Report

Add on Course conducted by

Chemistry Department during 2022-23

on

Chemistry For Entrepreneurship And Production

SSES Amti's Science College Congress Nagar Nagpur

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

Department of Chemistry

2022-23 (Batch-2)

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 05th August 2022 to 08th October 2022 (10week) .Total 53 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 practicals 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 18th October 2022. Also Practical exam of students for 20 marks was conducted on 20th October 2022. After successfully completion of certificate course , the qualified students were awarded with Certificates.

Action Taken Report

Total 50 students were benifitted by this course in Chemistry For Entrepreneurship And Production and it was very helpful to expand their Enterpreneurship knowledge and skills. It also encouraged their innovation by bringing new ideas, products and services to the market.



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,

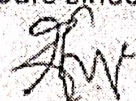
This is to request you that, we wish to conduct the add on courses in chemistry department these are the certificate courses of thirty hours' time duration.

The details of the courses is submitted here with.

Hence please permit to run the same and oblige me.

Thanking you

Yours sincerely



(Prof. R. V. Khopde) Head
Department of Chemistry,
Shri Shivaji Science College
Congress Nagar, Nagpur.

20/6/22

Permitted
R. V. Khopde

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

Date: 15-07-2022

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 20th July 2022. Looking forward to your active participation.

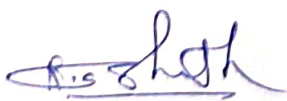
Course Details:

- **Course Name:** Chemistry For Entrepreneurship And Production
- **Duration:** 05th August 2022 to 08th October 2022
- **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



Course Coordinator
Professor

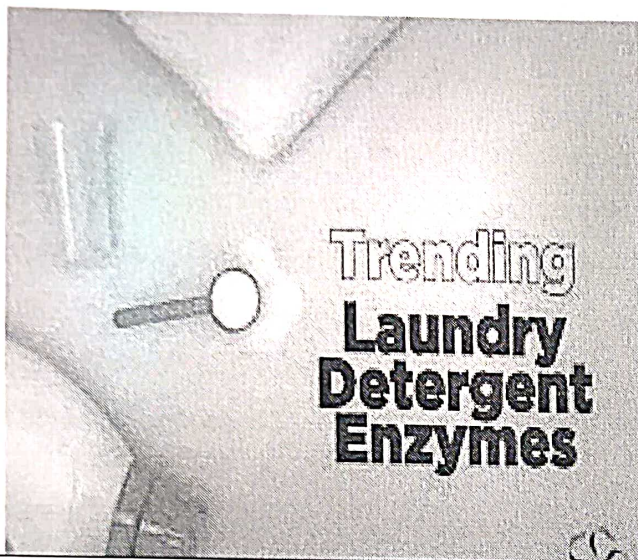
Department of Chemistry
SSES Amt's Science
College Congress Nagar
Nagpur



Head of Department

Professor & Head
Department of Chemistry,
Shri Shivaji Science College
Congress Nagar, Nagpur.

Certificate Course In Chemistry For Entrepreneurship And Production



Free Certificate Course for College Students

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

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

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.



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

**Last Date of Registration: 20th July 2022
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, Samples 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

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	

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. 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.

1.

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 (C8) Theory 4.00 PM – 5.00 PM
Saturday	RAD (C8) Theory, 4.00 PM – 5.00 PM
	RAD(Chemistry Laboratory) Practical, 5.00 PM – 6.00 PM

Certificate Course in

CHEMISTRY FOR Entrepreneurship AND
PRODUCTION

Enrolled
Name of Students for the
Session 2022-23

Course starts from 5 August 2022
to 8 October 2022

5 August 2022 To 8 October 2022

- ① Ku. Divya Kumar
- ② Ku. Pooja Kumbhare
- ③ Ku. Sejal Lende
- ④ Ku. Dakshita Madan
- ⑤ Mr. Abhay Manji
- ⑥ Ku. Tanushree Manapure
- ⑦ Ku. Shreuti Mohalikar
- ⑧ Ku. Ashwini Nahate
- ⑨ Ku. Riya Nakatre
- ⑩ Ku. Trishna Phultambekar
- ⑪ Ku. Sarika Raut
- ⑫ Ku. Shreeshli Raut

CHEMISTRY FOR ENTREPRENEURSHIP AND PRODUCTION

Page No. _____

Date: ____/____/____

- (13) Ku. Smita Samrit
14. Ku. Prachi Sarode
15. Ku. Yashvi Sare
16. Ku. Mrunmayee Sathawane
17. Ku. Bhagyashree Shende
18. Ku. Mendul Shende
19. Ku. Shrawari Shende
20. Ku. Akansha Shinde
21. Ku. Suhana Medyatullah
22. Ku. Vaihehi Anasane
23. Ku. Preeti Ambole
24. Mr. Pranay Atilkar
25. Ku. Yashika Bagde
26. Mr. Samyak Bansod
27. Ku. Visha Barte
28. Ku. Ashwini Borkar
29. Mr. Hemad Bhoyar
30. Ku. Mounali Bhusankar
31. Ku. Kajal Bisen
32. Ku. Achal Bole
33. Ku. Shanti Bonde
34. Ku. Tithi Bondre
35. Mr. Dushant Borkar
36. Ku. Smriti Brahmankar
37. Ku. Bhawini Chaudhari

CHEMISTRY FOR ENTREPRENEURSHIP AND PRODUCTION

Page No. _____

Date: / /

- 38 Ku. Ayush Chauhan
- 39 Ku. Harshada Chikhalkar
- 40 Ku. Chetna Dolvi
- 41 Ku. Riya Dhole
- 42 Ku. Parisa Dhole
- 43 Ku. Mahak Dongre
- 44 Ku. Aepita Gajbhiye
- 45 Mr. Sahil Behate
- 46 Ku. Poonam Bhakne
- 47 Ku. Janvi Bhute
- 48 Ku. Anushka Changole
- 49 Ku. Dhanashree Dalal
- 50 Ku. Shrutika Deotale
- 51 Ku. Krutika Dhakate
- 52 Ku. Tanvi Deshmukh
- 53 Mr. Pranjal Dhengre.

5 Aug 2022 to 8 Oct 2022

Practical

Science College, Congress Nagar, Nagpur. Name of Teacher :-

Certificate course in **Chemistry For Entrepreneurship And Production** 2022-23

Sr. No		Roll	Students Full Name	Total upto last Month		2022-23																				Total			
				Deli	Att	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Current Month	Progressive Month	Deli	Att
1		Ku	KUMAR DIVYA PRABHA SANJAY			P	P	P	A	P	P	A	P	P	P	A	P	P	P	A	P	P	P	P	P	P			
2		Ku	KUMBHARE POOJA DATTAJI			A	P	P	A	P	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P			
3		Ku	LENDE SEJAL OMPRAKASH			P	P	A	P	A	P	P	P	A	A	P	P	A	P	A	P	P	P	P	P	P			
4		Ku	MADAN DAKSHITA SANJAY			P	P	P	A	P	P	A	P	P	P	A	P	P	A	P	P	P	P	P	P	P			
5			MANJI ABHAY BHAWARSAI			P	A	P	P	A	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P			
6		Ku	MANAPURE TANUSHREE ROHIT			P	P	A	A	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P			
7		Ku	MOHADIKAR SHRUTI PURUSHOTTAM			A	P	P	A	P	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P			
8		Ku	NAHATE ASHWINI RAVI			P	P	P	P	P	A	P	P	A	A	P	P	A	P	P	P	P	P	P	P	P			
9		Ku	NAKAHRE RIYA RAMDAS			P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P			
10		Ku	PULTAMBEKAR TRISHNA SANTOSH			P	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P			
11		Ku	RAUT SANIKA VILAS			A	P	P	P	P	P	P	P	P	A	A	P	P	P	A	P	P	P	P	P	P			
12		Ku	RAUT SRUSHTI BHIMRAO			P	P	P	P	A	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P			
13		Ku	SAMRIT SMITA ARVIND			P	A	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P			
14		Ku	SARODE PRACHI DHARMENDRA			P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P			
15		Ku	SARVE YASHVI JIVANDAS			P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P			
16		Ku	SATHAWANE MRUNMAYEE PRAMOD			A	P	P	A	P	P	A	P	A	A	P	P	P	P	P	P	P	P	P	P	P			
17		Ku	SHENDE BHAGYASHREE VILAS			P	P	P	P	A	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P			
18		Ku	SHENDE MRUDUL RAHUL			A	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P			
19		Ku	SHENDE SHRAVANI RAMESH			P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P			
20		Ku	SHINDE AKANSHA VIJAY			P	P	A	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P			
21		Ku	HEDYATULLAH SUHANA			A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
22		Ku	ANASANE VAIDEHI GANESH			P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P			
23		Ku	AMBOLE TRUPTI DNYANESHWAR			P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P			
24			ATILKAR PRANAY DNYANESHWAR			P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
25		Ku	BAGDE YASHIKA PRAMOD			A	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P			
26			BANSOD SAMYAK DNYANESWATR			P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			

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

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

										Aug.										Sep.										Oct.							
										5	6	12	13	19	20	26	27	2	3	9	10	16	17	23	24	30	1	7	8								
27	Ku	BARDE VISHA PRAKASH								P	P	A	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	Ku	BARASKAR ASHWINI UMESH								P	P	A	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
29		BHOYAR HEMAD AJAY								A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
30	Ku	BHUSHANKAR MRUNALI NARESH								P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
31	Ku	BISEN KAJAL DEBLAL								P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
32	Ku	BOLE ACHAL ANOOP								P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
33	Ku	BONDE SHRUTI VINOD								P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
34	Ku	BONDRE TITHI KUSUMAKAR								A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
35	Ku	BORKAR DUSHANT RUSHI								P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
36	Ku	BRAHMANKAR SMRUTI SANJAY								P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
37	Ku	CHAUDHARI BHARVI VIKAS								A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
38	Ku	CHAVHAN AYUSH DILIP								A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
39	Ku	CHIKHALKAR HARSHADA WASUDEV								P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
40	Ku	DALVI CHETNA KAILAS								P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

(13)

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

Nagpur

Professor

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

Practical

Science College, Congress Nagar, Nagpur.

Name of Test

Name of Teacher

Reshad Deshmukh
2022-23

Certificate course in Chemistry For Entrepreneurship And Production

[illegible]

②

Course Coordinator:

S.E.S.A.'s Science Collec-

indian

Professor

Department of Chemistry

SSES Ant'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

Date:12/10/2022

EXAMINATION 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)	18/10/2022 (Tuesday)	12 noon to 1.00pm	Room NoC8
2	Certificate course in Chemistry For Entrepreneurship And Production (Practical)	20/10/2022 (Thursday)	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

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

DEPARTMENT OF CHEMISTRY

Certificate course in

Chemistry For Entrepreneurship And Production

Theory Examination

Date: 18/10/2022

Max Marks: 80

Time: 12:00 am to 1:00 pm

Roll No :

Name of Student:

<p>Note: 1. All questions are compulsory and carry equal marks 2. Tick only one correct option</p>
--

1. Which of the following is a common characteristic of green cosmetics formulations?
 - a) Heavy reliance on synthetic chemicals
 - b) Minimal use of natural and organic ingredients
 - c) Avoidance of animal testing
 - d) High production costs
2. What is a key consideration in the selection of ingredients for green cosmetics formulations?
 - a) Cost-effectiveness
 - b) Synthetic origin
 - c) Environmental sustainability
 - d) Harshness on skin

3. Which of the following ingredients is often avoided in green cosmetics formulations due to environmental concerns?

- a) Parabens
- b) Synthetic fragrances
- c) Petroleum-derived ingredients
- d) All of the above

4. What is the role of natural preservatives in green cosmetics formulations?

- a) Enhancing fragrance
- b) Extending shelf life
- c) Providing color
- d) Increasing viscosity

5. Which of the following is NOT a common ingredient in green cosmetics formulations?

- a) Essential oils
- b) Botanical extracts
- c) Synthetic dyes
- d) Plant-based butters

6. What is the primary purpose of emollients in green cosmetics formulations?

- a) Providing fragrance
- b) Adding color
- c) Moisturizing and softening the skin
- d) Increasing foaming action

7. How do green cosmetics formulations contribute to sustainability?
- a) By using recyclable packaging
 - b) By avoiding animal testing
 - c) By minimizing the use of synthetic chemicals
 - d) All of the above
8. Which of the following certifications may be sought by manufacturers of green cosmetics formulations?
- a) ISO 9001
 - b) Fair Trade Certified
 - c) USDA Organic
 - d) All of the above
9. How do green cosmetics formulations align with consumer preferences?
- a) By prioritizing affordability over sustainability
 - b) By offering a wide range of synthetic fragrances
 - c) By meeting demand for natural and organic products
 - d) By focusing on high levels of synthetic preservatives
10. What is the primary active ingredient in most alcohol-based hand sanitizers?
- a) Sodium hypochlorite
 - b) Benzalkonium chloride
 - c) Ethanol or isopropyl alcohol
 - d) Hydrogen peroxide

11. Which of the following microorganisms are effectively killed by sanitizers?

- a) Viruses
- b) Bacteria
- c) Fungi
- d) All of the above

12. 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

13. 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%

14. 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

15. 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
16. 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
17. 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
18. Which type of disinfectant is effective against bacterial spores?
- a) Alcohols
 - b) Quaternary Ammonium Compounds (Quats)
 - c) Phenolic disinfectants
 - d) Halogens
19. 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

15. 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

16. 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

17. 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

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

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

19. 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

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

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

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

- a) Sodium chloride
- b) Sodium hydroxide
- c) Sodium lauryl sulfate
- d) Sodium bicarbonate

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

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

23. 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

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

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

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

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

26. 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

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

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

28. 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

29. 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

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

- a) They are inexpensive to produce
- b) They are highly toxic to humans
- c) They are effective against a wide range of microorganisms
- d) They have a long shelf life

31. How are bioenzymes commonly produced for use as disinfectants?

- a) Chemical synthesis
- b) Fermentation using microbial cultures
- c) Extraction from plants
- d) Purification from animal sources

32. What role do bioenzymes play in the disinfection process?

- a) They physically remove microorganisms from surfaces
- b) They neutralize toxins produced by microorganisms
- c) They break down organic matter and disrupt microbial cell walls
- d) They inhibit the growth of microorganisms

33. Which of the following is a common type of bioenzyme used as a disinfectant?
- a) Protease
 - b) Glucose oxidase
 - c) Cellulase
 - d) Lipase
34. What is the primary substrate targeted by protease enzymes in disinfection?
- a) Proteins
 - b) Carbohydrates
 - c) Lipids
 - d) Nucleic acids
35. What environmental conditions are typically favorable for bioenzyme production?
- a) High temperature and low pH
 - b) Low temperature and high pH
 - c) Neutral pH and aerobic conditions
 - d) Acidic pH and anaerobic conditions
36. How do bioenzymes compare to chemical disinfectants in terms of environmental impact?
- a) Bioenzymes have a higher environmental impact
 - b) Bioenzymes have a lower environmental impact
 - c) Bioenzymes and chemical disinfectants have similar environmental impacts
 - d) Bioenzymes are not environmentally friendly

37. What is the primary benefit of using bioenzymes over chemical disinfectants?

- a) Bioenzymes have a longer shelf life
- b) Bioenzymes are more cost-effective
- c) Bioenzymes are less effective against microorganisms
- d) Bioenzymes are less harmful to surfaces and materials

38. Which of the following is a common application of bioenzymes as disinfectants?

- a) Water treatment
- b) Food preservation
- c) Air purification
- d) All of the above

39. How do bioenzymes contribute to the sustainability of disinfection practices?

- a) By reducing the need for harsh chemicals
- b) By increasing the energy consumption of disinfection processes
- c) By decreasing the effectiveness of disinfection
- d) By increasing the production of toxic byproducts

40. What is the primary objective of green cosmetics formulation?

- a) Maximizing profits
- b) Minimizing environmental impact
- c) Maximizing synthetic ingredients
- d) Minimizing shelf life

Answer Key

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

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

DEPARTMENT OF CHEMISTRY


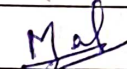

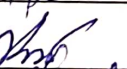

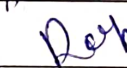
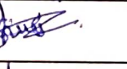
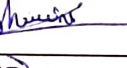
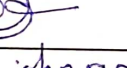
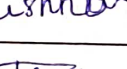
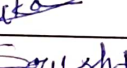
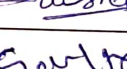
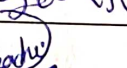
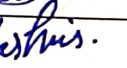
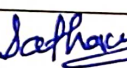
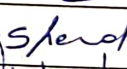
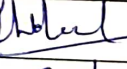
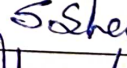
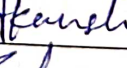
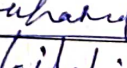
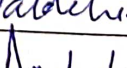
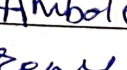
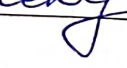

Certificate course in

Chemistry For Entrepreneurship And Production


Date:18/10/2022

Theory Examination

Marks:80

Sr.no		Name	Signature
1	Ku	KUMAR DIVYA PRABHA SANJAY	
2	Ku	KUMBHARE POOJA DATTAJI	
3	Ku	LENDE SEJAL OMPRAKASH	
4	Ku	MADAN DAKSHITA SANJAY	
5		MANJI ABHAY BHAWARSAI	
6	Ku	MANAPURE TANUSHREE ROHIT	
7	Ku	MOHADIKAR SHRUTI PURUSHOTTAM	
8	Ku	NAHATE ASHWINI RAVI	
9	Ku	NAKAHRE RIYA RAMDAS	
10	Ku	PULTAMBEKAR TRISHNA SANTOSH	
11	Ku	RAUT SANIKA VILAS	
12	Ku	RAUT SRUSHTI BHIMRAO	
13	Ku	SAMRIT SMITA ARVIND	
14	Ku	SARODE PRACHI DHARMENDRA	
15	Ku	SARVE YASHSVI JIVANDAS	
16	Ku	SATHAWANE MRUNMAYEE PRAMOD	
17	Ku	SHENDE BHAGYASHREE VILAS	
18	Ku	SHENDE MRUDUL RAHUL	
19	Ku	SHENDE SHRAVANI RAMESH	
20	Ku	SHINDE AKANSHA VIJAY	
21	Ku	HEDYATULLAH SUHANA	
22	Ku	ANASANE VAIDEHI GANESH	
23	Ku	AMBOLE TRUPTI DNYANESHWAR	
24		ATILKAR PRANAY DNANESWHAR	

25	Ku	BAGDE YASHIKA PRAMOD	Bagache
26		BANSOD SAMYAK DNYANESWATR	S.D. Bansod
27	Ku	BARDE VISHA PRAKASH	ABSENT
28	Ku	BARASKAR ASHWINI UMESH	Baraskar
29		BHOYAR HEMAD AJAY	H.A. Bhoyar
30	Ku	BHUSHANKAR MRUNALI NARESH	Bhushankar
31	Ku	BISEN KAJAL DEBLAL	Bisen
32	Ku	BOLE ACHAL ANOOP	Anoop Bole
33	Ku	BONDE SHRUTI VINOD	Bonde
34	Ku	BONDRE TITHI KUSUMAKAR	T.K. Bondre
35	Ku	BORKAR DUSHANT RUSHI	Borkar
36	Ku	BRAHMANKAR SMRUTI SANJAY	S.S.B.
37	Ku	CHAUDHARI BHARVI VIKAS	Chaudhari
38	Ku	CHAVHAN AYUSH DILIP	Chavhan
39	Ku	CHIKHALKAR HARSHADA WASUDEV	Chikhalkar
40	Ku	DALVI CHETNA KAILAS	Dalvi
41	Ku	KUMAR DIVYA PRABHA SANJAY	Kumar
42	Ku	DHOBE RIYA SATISH	ABSENT
43	Ku	DHORE PARISA PRAMOD	Dhore
44	Ku	DONGRE MAHAK NEELAM	N. Dongre
45	Ku	GAJBHIYE ARPITA KISHOR	Gajbhiye
46		BEHATE SAHIL GAJANAN	Behate
47	Ku	BHAKNE POONAM NIRANJAN	Bhakne
48	Ku	BHUTE JANVI SACHIN	Bhute
49	Ku	CHANGOLE ANUSHKA DEVIDAS	Changole
50	Ku	DALAL DHANASHREE VIKAS	Dalal
51	Ku	DEOTALE SHRUTIKA DILIP	S.D. Deotale
52	Ku	DHAKATE KRUTIKA MAHESH	Dhakate
53	Ku	DESHMUKH TANVI RAJESH	Deshmukh


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

66
80

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

Chemistry for Entrepreneurship and Production (30Hrs) Marks:

Theory Examination based on M.C.Q Type Questions.

OMR SHEET

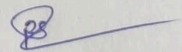
Date 18/10/2022

TICK ON CORRECT ANSWER (Time 1 hour)

Roll No. 228

Signature of Coordinator.....

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


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

66
80

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

Chemistry for Entrepreneurship and Production (30Hrs)

Marks:

Theory Examination based on M.C.Q Type Questions.

OMR SHEET

Date 18/10/2022

Roll No. 228

TICK ON CORRECT ANSWER (Time 1 hour)

Signature of Coordinator.....

R. S. Sharma

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

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

74
80

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

Chemistry for Entrepreneurship and Production (30Hrs) Marks:

Theory Examination based on M.C.Q Type Questions.

OMR SHEET


Date 18/10/2022

Roll No. 206

TICK ON CORRECT ANSWER (Time 1 hour)

Signature of Coordinator. 

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


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

SSES Amravati's Science College, Congress
Nagar, Nagpur-12
DEPARTMENT OF CHEMISTRY
Certificate course in

Chemistry For Entrepreneurship And Production

Date:12 /10/2022

NOTICE

All the admitted students of B.Sc Chemistry are hereby informed that the Certificate course in
“Chemistry for Entrepreneurship and Production” Practical examination will be held on
20/10/2022 (Thursday) at 12.00 noon to 1.00 pm in Chemistry Lab A at our college .



Dr. Reshal A. Deshmukh

Coordinator

“Chemistry for Entrepreneurship and Production”

Dept of Chemistry

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

DEPARTMENT OF CHEMISTRY

Certificate course in

Chemistry For Entrepreneurship And Production

Practical Examination

Date: 20/10/2022

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

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


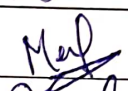
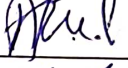
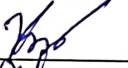
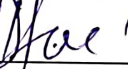
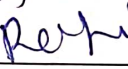
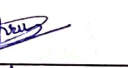
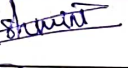

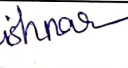
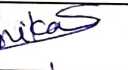
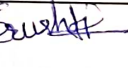
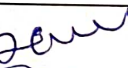
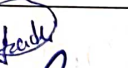
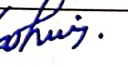
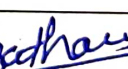
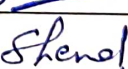
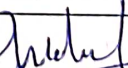
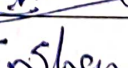
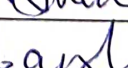
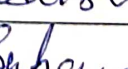
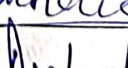
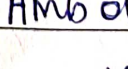
DEPARTMENT OF CHEMISTRY

Certificate course in
Chemistry For Entrepreneurship And Production

Date:20/10/2022

Practical Examination

Marks:20

Sr.no		Name	Signature
1	Ku	KUMAR DIVYA PRABHA SANJAY	
2	Ku	KUMBHARE POOJA DATTAJI	
3	Ku	LENDE SEJAL OMPRAKASH	
4	Ku	MADAN DAKSHITA SANJAY	
5		MANJI ABHAY BHAWARSAI	
6	Ku	MANAPURE TANUSHREE ROHIT	
7	Ku	MOHADIKAR SHRUTI PURUSHOTTAM	
8	Ku	NAHATE ASHWINI RAVI	
9	Ku	NAKAHRE RIYA RAMDAS	
10	Ku	PULTAMBEKAR TRISHNA SANTOSH	
11	Ku	RAUT SANIKA VILAS	
12	Ku	RAUT SRUSHTI BHIMRAO	
13	Ku	SAMRIT SMITA ARVIND	
14	Ku	SARODE PRACHI DHARMENDRA	
15	Ku	SARVE YASHSVI JIVANDAS	
16	Ku	SATHAWANE MRUNMAYEE PRAMOD	
17	Ku	SHENDE BHAGYASHREE VILAS	
18	Ku	SHENDE MRUDUL RAHUL	
19	Ku	SHENDE SHRAVANI RAMESH	
20	Ku	SHINDE AKANSHA VIJAY	
21	Ku	HEDYATULLAH SUHANA	
22	Ku	ANASANE VAIDEHI GANESH	
23	Ku	AMBOLE TRUPTI DNYANESHWAR	

24		ATILKAR PRANAY DNANESWHAR	Pranay
25	Ku	BAGDE YASHIKA PRAMOD	Bagde
26		BANSOD SAMYAK DNYANESWATR	Bansod
27	Ku	BARDE VISHA PRAKASH	- ABSENT -
28	Ku	BARASKAR ASHWINI UMESH	Baraskar
29		BHOYAR HEMAD AJAY	H.A. Bhoyar
30	Ku	BHUSHANKAR MRUNALI NARESH	Bhushankar
31	Ku	BISEN KAJAL DEBLAL	Bisen
32	Ku	BOLE ACHAL ANOOP	Anoop Bole
33	Ku	BONDE SHRUTI VINOD	Bonde
34	Ku	BONDRE TITHI KUSUMAKAR	T.K. Bondre
35	Ku	BORKAR DUSHANT RUSHI	Borkar
36	Ku	BRAHMANKAR SMRUTI SANJAY	S.S.B.
37	Ku	CHAUDHARI BHARVI VIKAS	Chaudhari
38	Ku	CHAVHAN AYUSH DILIP	Chavhan
39	Ku	CHIKHALKAR HARSHADA WASUDEV	Harshada
40	Ku	DALVI CHETNA KAILAS	Dalvi
41	Ku	KUMAR DIVYA PRABHA SANJAY	Kumar
42	Ku	DHOBE RIYA SATISH	- ABSENT -
43	Ku	DHORE PARISA PRAMOD	Dhore
44	Ku	DONGRE MAHAK NEELAM	Dongre
45	Ku	GAJBHIYE ARPITA KISHOR	Gajbhiye
46		BEHATE SAHIL GAJANAN	Behate
47	Ku	BHAKNE POONAM NIRANJAN	Bhakne
48	Ku	BHUTE JANVI SACHIN	Bhute
49	Ku	CHANGOLE ANUSHKA DEVIDAS	Changole
50	Ku	DALAL DHANASHREE VIKAS	Dalal
51	Ku	DEOTALE SHRUTIKA DILIP	S.D. Deotale
52	Ku	DHAKATE KRUTIKA MAHESH	Dhakate
53	Ku	DESHMUKH TANVI RAJESH	Deshmukh

DEPARTMENT OF CHEMISTRY

Certificate Course in

Chemistry for Entrepreneurship and Production (30Hrs)

Result Sheet

05 August 2022 to 08 October 2022

2022-2023

Sr. No.	Roll No.		Name of Student	Theory	Practical	Total	Grade
				80	20	100	
1	201	Ku	KUMAR DIVYA PRABHA SANJAY	56	18	74	B
2	202	Ku	KUMBHARE POOJA DATTAJI	58	16	74	B
3	203	Ku	LENDE SEJAL OMPRAKASH	68	17	85	A
4	204	Ku	MADAN DAKSHITA SANJAY	70	15	85	A
5	205		MANJI ABHAY BHAWARSAI	72	14	86	A
6	206	Ku	MANAPURE TANUSHREE ROHIT	74	18	92	A+
7	207	Ku	MOHADIKAR SHRUTI PURUSHOTTAM	68	16	84	A
8	208	Ku	NAHATE ASHWINI RAVI	74	14	88	A
9	209	Ku	NAKAHRE RIYA RAMDAS	66	13	79	A
10	210	Ku	PULTAMBEKAR TRISHNA SANTOSH	56	16	72	B
11	211	Ku	RAUT SANIKA VILAS	72	17	89	A
12	212	Ku	RAUT SRUSHTI BHIMRAO	82	12	94	A+
13	213	Ku	SAMRIT SMITA ARVIND	74	14	88	A
14	214	Ku	SARODE PRACHI DHARMENDRA	66	16	82	A
15	215	Ku	SARVE YASHSVI JIVANDAS	58	15	73	B
16	216	Ku	SATHAWANE MRUNMAYEE PRAMOD	82	16	98	A+
17	217	Ku	SHENDE BHAGYASHREE VILAS	68	18	86	A
18	218	Ku	SHENDE MRUDUL RAHUL	78	15	93	A+

19	219	Ku	SHENDE SHRAVANI RAMESH	48	17	65	B
20	220	Ku	SHINDE AKANSHA VIJAY	58	16	74	A
21	221	Ku	HEDYATULLAH SUHANA	52	15	67	B
22	222	Ku	ANASANE VAIDEHI GANESH	66	14	80	A
23	223	Ku	AMBOLE TRUPTI DNYANESHWAR	58	12	70	B
24	224		ATILKAR PRANAY DNANESHWAR	64	19	83	A
25	225	Ku	BAGDE YASHIKA PRAMOD	40	20	60	B
26	226		BANSOD SAMYAK DNYANESWATR	50	14	64	B
27	227	Ku	BARDE VISHA PRAKASH	50	AA	AA	AA
28	228	Ku	BARASKAR ASHWINI UMESH	66	17	83	A
29	229		BHOYAR HEMAD AJAY	70	18	88	A
30	230	Ku	BHUSHANKAR MRUNALI NARESH	76	14	90	A+
31	231	Ku	BISEN KAJAL DEBLAL	68	17	85	A
32	232	Ku	BOLE ACHAL ANOOP	58	15	73	B
33	233	Ku	BONDE SHRUTI VINOD	52	18	70	B
34	234	Ku	BONDRE TITHI KUSUMAKAR	62	19	81	A
35	235	Ku	BORKAR DUSHANT RUSHI	58	20	78	A
36	236	Ku	BRAHMANKAR SMRUTI SANJAY	64	14	78	A
37	237	Ku	CHAUDHARI BHARVI VIKAS	42	16	58	B
38	238	Ku	CHAVHAN AYUSH DILIP	46	18	64	B
39	239	Ku	CHIKHALKAR HARSHADA WASUDEV	74	16	90	A+
40	240	Ku	DALVI CHETNA KAILAS	68	18	86	A
41	241	Ku	DHOBE RIYA SATISH	74	AA	AA	AA
42	242	Ku	DHORE PARISA PRAMOD	56	20	76	A
43	243	Ku	DONGRE MAHAK NEELAM	48	18	66	B
44	244	Ku	GAJBHIYE ARPITA KISHOR	62	17	79	A
45	245		BEHATE SAHIL GAJANAN	72	19	91	A+
46	246	Ku	BHAKNE POONAM NIRANJAN	52	16	68	B

47	247	Ku	BHUTE JANVI SACHIN	42	17	59	B
48	248	Ku	CHANGOLE ANUSHKA DEVIDAS	52	15	67	B
49	249	Ku	DALAL DHANASHREE VIKAS	78	19	97	A+
50	250	Ku	DEOTALE SHRUTIKA DILIP	68	16	84	A
51	251	Ku	DHAKATE KRUTIKA MAHESH	46	14	60	B
52	252	Ku	DESHMUKH TANVI RAJESH	66	15	81	A
53	253		DHENGRE PRANJAL NARESH	70	16	86	A



SSES Amti's Science College Congress Nagar Nagpur

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

Department of Chemistry

2022-23 (Batch-2)

Feedback Analysis

1. Numbered of students enrolled for the certificate course-53
2. Number of students successfully completed the certificate course-50
3. Number of students successfully submitted feedback -45

S N	Question	Students Number wise Responses		
1	Rating	Yes	No	May Be
	1.Did the course improve the students skills	40	5	--
2	Rating	Yes	No	May Be
	2. Did the training meet your expectations?	41	4	--
3	Rating	Yes	No	May Be
	3. Was the overall quality of this certificate course beneficial to you	42	2	01
4	Rating	Yes	No	May Be
	4.Were you satisfied with the learning content and material?	45	-	-
5.	Rating	Yes	No	May Be
	5. Is this a need of hour	40	00	5

SSES Amti's Science College Congress Nagar Nagpur

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

Department of Chemistry

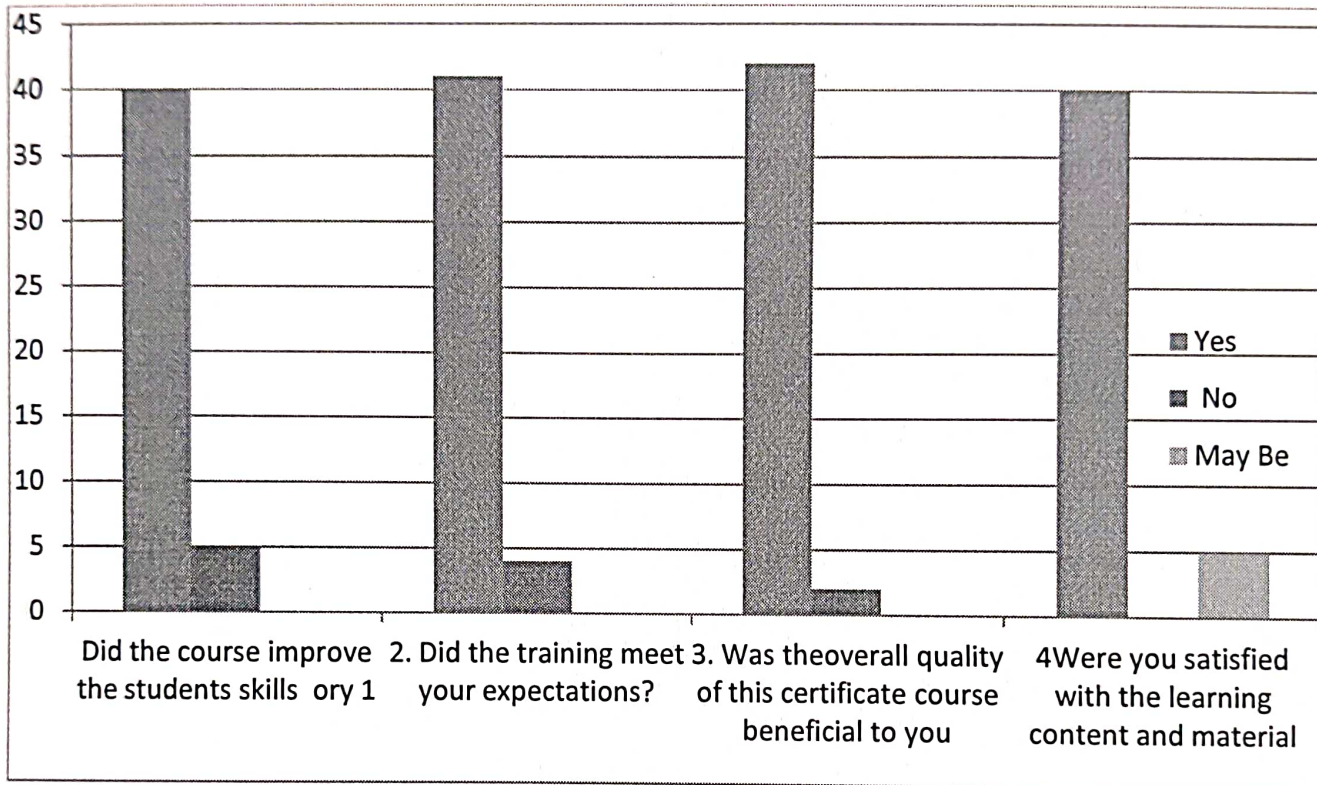
2022-23 (Batch-2)

Feedback Analysis

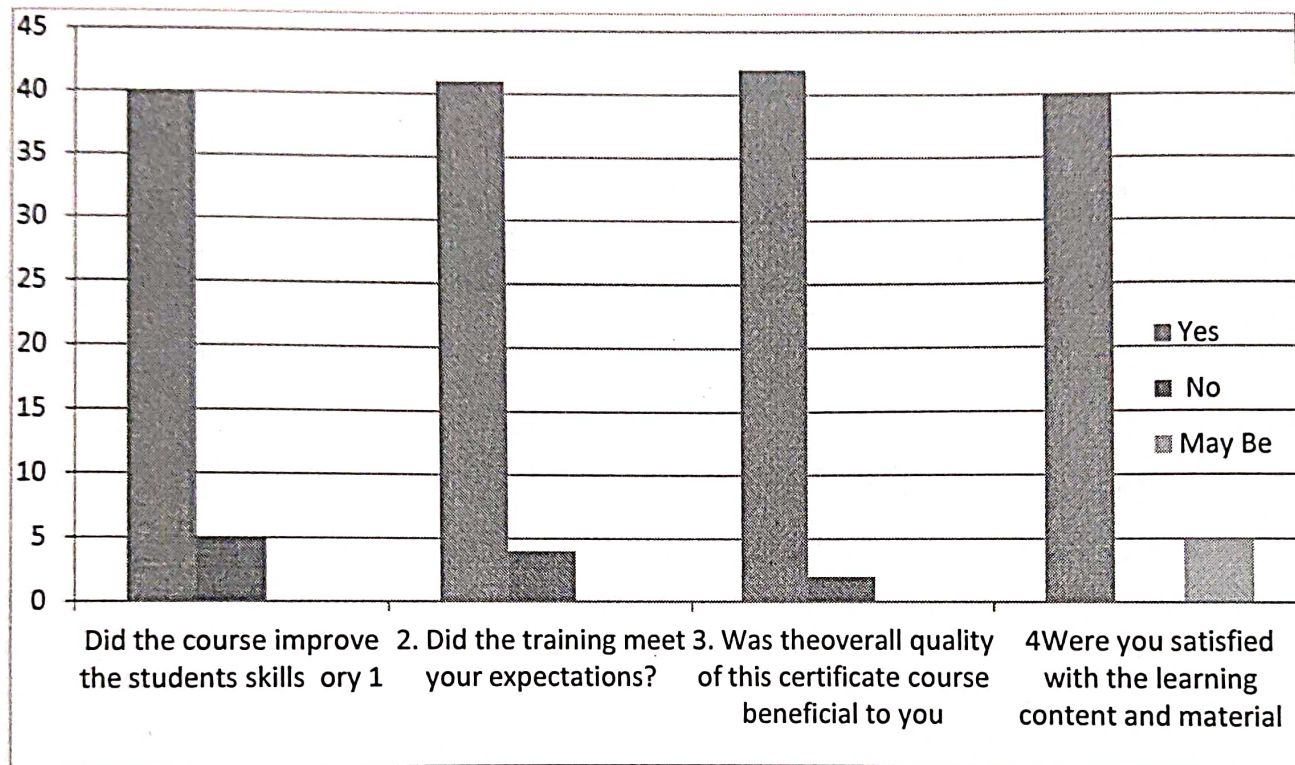
1. Numbered of students enrolled for the certificate course-53
2. Number of students successfully completed the certificate course-50
3. Number of students successfully submitted feedback -45

S N	Question	Students Number wise Responses		
1	Rating	Yes	No	May Be
	1.Did the course improve the students skills	40	5	--
2	Rating	Yes	No	May Be
	2. Did the training meet your expectations?	41	4	--
3	Rating	Yes	No	May Be
	3. Was the overall quality of this certificate course beneficial to you	42	2	01
4	Rating	Yes	No	May Be
	4 Were you satisfied with the learning content and material?	45	-	-
5.	Rating	Yes	No	May Be
	5. Is this a need of hour	40	00	5

Graphical Representation

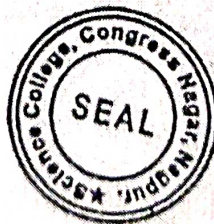


Graphical Representation



AA Haldar

Internal Quality Assurance Cell
(IQAC)
S. S. E. S. A. Science College
Congress Nagar, Nagpur.



Nohari

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



Shri Shivaji Education Society Amravati's
**SCIENCE COLLEGE, CONGRESS NAGAR,
NAGPUR**

Accredited with CGPA of 3.51 at 'A+' Grade
A College with Potential for Excellence



CERTIFICATE

Mt./Ku Pooja D Kumbhate is awarded with certificate on successful completion of the course entitled, Certificate course in "Chemistry for Entrepreneurship and Production".

Session 2023-24 under Add-on course conducted for 30 hours from 05/08/2022 to 08/10/2022 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

Prof. M. P. Dhore
Principal, Science College