

SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE COLLEGE,

NAGPUR

PG DEPARTMENT OF CHEMISTRY

Academic Session: 2023-24

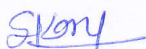
Course Coordinator Report

Course Name: **Chemistry Useful in Life**

A free Add-On Course for PG students in the Department of Chemistry, Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur was held from 16 January to 16 April 2024. The motto behind this course is to enrich students with knowledge of Chemistry useful in life. It is 10-week duration course. Practical and Theory classes are arranging for students. For this course 29 Students are enrolled. Theory exam was MCQ based containing 40 questions and Each question having 2 marks. Practical of 20marks. It was based performance evaluation in the laboratory.

Number of Students Appeared: -29

Number of Students Passed: -29



Dr. S. J. Kene

Course Coordinator

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

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

Subject: For permission to conduct the add on courses in the department during the session 2023-2024

Respected Sir,

This is to request you that, the teachers of our Chemistry department have prepared the syllabus and modules of the 30 hours certificate courses for the session 2023-2024.

The details of the course module, syllabus and time table is submitted here with.

Hence please permit to run the add on courses and oblige me.

Thanking you

Yours sincerely



(Prof. R. U. Khope)

Dt
24/6/23

Professor & Head
Department of Chemistry,
Shri Shivaji Science College
Congress Nagar, Nagpur-12

Permitted
R. U. Khope

SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE COLLEGE,
NAGPUR

PG DEPARTMENT OF CHEMISTRY

Academic Session

2023-2024

Date: 10/01/2024

NOTICE

All the students of M.Sc. (Chemistry) are hereby informed that the Department of Chemistry is going to start the "**Certificate Course in Chemistry Useful in life**" from 16th- 16th April 2024.

So, the interested students should register their name for this course in the department of Chemistry. The Schedule is as follows.

Registration starts on: 11/01/24 (11:00 am to 4:00 pm)

Registration end on: 15/01/24 (4:00 pm)

Venue of registration: Department of Chemistry

Course Coordinator

Dr. Shubhangi J. Kene

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

The value Added Course
in
"Chemistry Useful in Life"

From 16 Jan 2024 to 16 April 2024

Course Coordinator

Dr. Shubhangi J. Kene

Session 2023-24



Objective of Course:

1. To understand the importance of chemistry in the processing of food products.
2. To give insight of the chemistry to prepare the polymers and the other products.

Duration of the Course: 30 Hrs

No. of Participants: 30

Course Fees: Free

Commencement on: 19/01/2024

Organized by

PG DEPARTMENT OF CHEMISTRY

SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S

SCIENCE COLLEGE, NAGPUR

**SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE COLLEGE,
NAGPUR
PG DEPARTMENT OF CHEMISTRY
Academic Session: 2023-2024**

About the Course:

Chemistry is a very important part of our daily lives, silently influencing everything around us. It's the science that explores what things are made of and how they change under different conditions.

Chemicals are the fundamental components of everything. Chemical molecules make up all food, including carbs, vitamins, lipids, proteins, and fiber, which are all safe and often desirable.

Chemicals have an important part in the manufacturing and preservation of food. Food *preservation chemicals have tremendously aided in the preservation of food for a longer* duration. Cans of food additives, flavourings, and nutritional supplements can all contribute to improve the quality and quantity of meals.

Chemistry has provided the globe with vital fertilizers, herbicides, insecticides, and fungicides to aid in the production of healthy and nutritious crops, fruits, and vegetables. Urea, calcium superphosphates, ammonium sulphate, and sodium nitrate are all significant fertilisers.

Course Learning Outcome:

After the completion of the course, student will be able:

1. To understand the fat and vitamins in the milk and various food.
2. To identify purity and Composition of edible oils.
3. To understand the Classification and Application of polymers.
4. To understand artificial food colorants, sweeteners and preservatives

Faculty: The classes are delivered by the faculty **Dr. S. J. Kene**

Duration of the Course: 30 Hrs

No. of times offered in a year: Once

Fees: Free

Certification: All successful students shall be awarded by a certificate.

Coordinator

S. J. Kene

Dr. S. J. Kene
Assistant Professor



Principal

M. P. Dhore

Prof. M. P. Dhore
Shivaji Science College,
Congress Nagar, Nagpur

**SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE
COLLEGE,
NAGPUR**

PG DEPARTMENT OF CHEMISTRY

Academic Session: 2023-24

Title of the course: "Chemistry Useful in Life"

Number of lecture hours: 30 Hrs

Course Learning Outcome:

After the completion of the course, student will be able:

1. To understand the fat and vitamins in the milk and various food.
2. To identify purity and Composition of edible oils.
3. To understand the Classification and Application of polymers.
4. To understand artificial food colorants, sweeteners and preservatives

Content of the course:

Unit-1

Dairy Products: Composition of milk and milk products. Minerals in milk and butter. Estimation of added water in milk. Analysis of fat content. Analysis of caffeine in coffee and tea. Detection of chicory in coffee. Beverages, determination of methyl alcohol in alcoholic beverages. Artificial food colorants: coal tar dyes and non- permitted colors and metallic salts. Analysis of pesticide residues in food.

Unit-2

Food additives, adulterants and contaminations: Food preservatives like benzoates, propionates, sorbates, sulphites. Artificial sweeteners - aspartame, saccharin, dulcin, sucralose and sodium cyclamate.

Unit-3


Vitamins: Classification and nomenclature sources, deficiency diseases and structures of Vitamin A1, B1, C, D, E and K1. Oils and Fats: Composition of edible oils detection of Purity, Rancidity of fats and oils, Tests for adulterants like orgamone oil and mineral oils.

Unit-4

Polymers: Basic concepts of polymers, Classification, Application of polymers as Plastics in Electronic, Automobiles components, Medical Fields and aerospace materials. Problems of Plastic waste managements.

Practicals: - Methods for analysis of alcoholic beverages

1. Determination of Ethyl alcohol content
2. Determination of Methyl alcohol
3. Determination of Residue on evaporation
4. Determination of Reducing sugars
5. Determination of Sorbic acid



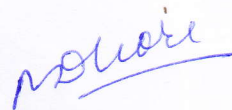
Course Coordinator



IQAC Coordinator

Internal Quality Assurance Cell
(IQAC)

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



Principal

Principal

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

Week-Wise Teaching Plan

Week	Hours	Topics
Week 1	3	Composition of milk and milk products. Minerals in milk and butter, Estimation of added water in milk, Analysis of fat content
Week 2	3	Analysis of caffeine in coffee and tea. Detection of chicory in coffee. Beverages, determination of methyl alcohol in alcoholic beverages
Week 3	3	Artificial food colorants: coal tar dyes and non-permitted colors and metallic salts. Analysis of pesticide residues in food.
Week 4	3	Food additives, adulterants and contaminations: Food preservatives like benzoates, propionates, sorbates, sulphites
Week 5	3	Artificial sweeteners - aspartame, saccharin, dulcin, sucralose and sodium cyclamate.
Week 6	3	Vitamins: Classification and nomenclature sources, deficiency diseases and structures of Vitamin A1, B1, C, D, E and K1
Week 7	3	Oils and Fats: Composition of edible oils detection of Purity
Week 8	3	Rancidity of fats and oils, Tests for adulterants like organo oil and mineral oils
Week 9	3	Polymers: Basic concepts of polymers, Classification, Application of polymers as Plastics in Electronic, Automobiles components,
Week 10	3	Medical Fields and aerospace materials. Problems of Plastic waste managements.

The Structure of Syllabus and system of evaluation -

Course	Theory Papers and Practical	Total Marks	
		Theory	Practical
Certificate Course in "Certificate Course in Chemistry Useful in life"	Theory paper- " Chemistry Useful in Life" * Theory examination will be of MCQ pattern having 40 questions each with equal marks.	80	20
	* Practical examination will be based on performance evaluation in the laboratory	100	

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

**SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE
COLLEGE, NAGPUR**

PG DEPARTMENT OF CHEMISTRY

Academic Session: 2023-24

Title of the course: "Chemistry Useful in Life"

Time Table

Day	Time	Theory/Practical	Name of Teacher
Friday	3:30pm - 4:30pm	Theory	Dr. S. J. Kene
Saturday	3:30pm - 4:30pm	Theory	Dr. S. J. Kene
Saturday	4:30pm - 5:30pm	Practical	Dr. S. J. Kene

Course Coordinator

Shubhangi

Dr. Shubhangi J. Kene

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

Shri Shivaji Education Society Amravati's
Science College Congress Nagar Nagpur

Department of Chemistry

Add on course

Title: "Certificate Course in Chemistry Useful in life"

Attendance Sheet-2023-2024

Course Coordinator: Dr. Shubhangi Jagdish Kene

Sr. No	Roll No.	Name of the Student
1	101	AAFREEN NIGAR ASIF IQBAL ----
2	102	GAURI PRADIP NASARE
3	103	JANHVI UMESH FATING
4	104	MAHEK DINESH SHINDE
5	105	1405MUSKAN SATENDRA KUMBHARE
6	106	NIDHI RADHESHYAM GUPTA
7	107	NIKHITA PANDHARI PIPARE
8	108	PALLAVI PARAM BORKAR
9	109	PRADNYA ARVIND APTE
10	110	PRANJU ASHOK AMBULE
11	111	ROHITA VISHNU PARDHI
12	112	SEJAL SUBHASH THENGE
13	113	SHABAHAT MD. IRFAN KHAN
14	114	TANAYA VINAYAK LANJEWAR
15	115	TANNU DINESH SINDURKAR
16	116	AMOL SHALIKRAM DHANKAR
17	117	DIPALI NARENDRA DUDHE
18	118	GULSHAN NILESH GOLHAR
19	119	KANCHAN PRABHA SANTOSH KUMAR SINGH
20	120	PRAKARSHA OMPRAKASH KHADSE
21	121	SAKSHI SHIVAJI MOHITE
22	122	SAKSHI VIJAY KOTHE
23	123	SANA SAGIR KHAN
24	124	SEJAL MAHENDRA BHARNE
25	125	SEJAL SANJAY BULKUNDE
26	126	TULIKA TAPASH BANERJEE
27	127	VAISHNAVI CHANDRAKUMAR CHUTE
28	128	VASUKI SURESH DABHANE
29	129	VISHAKHA SANJAY MISAL

Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur.

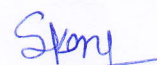
ADD-ON COURSE EXAMINATION (2023-2024)

Certificate Course: "Certificate Course in Chemistry Useful in life"

NOTICE

Date: 10/04/2024

All the registered students of the add-on Course on "**Certificate Course in Chemistry Useful in life**" under the Department of Chemistry for the session 2023-24 are hereby informed that the **Theory examination** is to be scheduled on 15/04/2024 (Monday) from 10:30 am to 11:30 am in the Chemistry classroom (C2) at our college center. Also, the Practical examination in PG lab is followed by the theory Examination. All Students should be present in classroom (C2x) 10 mins. of the scheduled time of examination. List of students along with roll no is given as Below:



Dr. S.J.Kene.
Course Coordinator
Department of Chemistry.

Shri Shivaji Education Society Amravati's
Science College Congress Nagar Nagpur

Department of Chemistry

Add on course

Title: "Certificate Course in Chemistry Useful in life"

Attendance Sheet-2023-2024

Course Coordinator: Dr. Shubhangi Jagdish Kene

Date:-15/04/2024

Sr. No	Roll No.	Name of the Student	Signature
1	101	AAFREEN NIGAR ASIF IQBAL ----	
2	102	GAURI PRADIP NASARE	
3	103	JANHVI UMESH FATING	
4	104	MAHEK DINESH SHINDE	
5	105	MUSKAN SATENDRA KUMBHARE	
6	106	NIDHI RADHESHYAM GUPTA	
7	107	NIKHITA PANDHARI PIPARE	
8	108	PALLAVI PARAM BORKAR	
9	109	PRADNYA ARVIND APTE	
10	110	PRANJU ASHOK AMBULE	
11	111	ROHITA VISHNU PARDHI	
12	112	SEJAL SUBHASH THENGE	
13	113	SHABAHAT MD. IRFAN KHAN	
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15	115	TANNU DINESH SINDURKAR	
16	116	AMOL SHALIKRAM DHANKAR	
17	117	DIPALI NARENDRA DUDHE	
18	118	GULSHAN NILESH GOLHAR	
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20	120	PRAKARSHA OMPRAKASH KHADSE	
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29	129	VISHAKHA SANJAY MISAL	

eShri Shivaji Education Society Amravati's
Science College Congress Nagar Nagpur
Department of Chemistry
Add on course

Attendance Sheet-2023-2024

Certificate Course in

Time-1Hrs

"CHEMISTRY USEFUL IN LIFE"

Maximum Marks:80

Note: -Solve all The questions.

Roll No.: -

Tick for right answer and Each question having 2 marks.

1. Milk is a good source of all water-soluble vitamins except for ____
 - a) Cyanocobalmin
 - b) Riboflavin
 - c) Ascorbic Acid
 - d) Thiamine
2. _____ is a milk process that makes milk more easily digested by those with a sensitive digestive system.
 - a) Ionization
 - b) Evaporation
 - c) Pasteurization
 - d) Homogenization
3. _____ amino acids are commonly found in milk proteins, including the essential amino acids.
 - a) 7
 - b) 12
 - c) 14
 - d) 19
4. Summer milk has been estimated to contain 1.6 times as much vitamin ____ as winter milk.
 - a) A
 - b) B
 - c) C
 - d) D
5. Select the incorrect statement from the following option.
 - a) Oils are saturated triglyceride
 - b) Oils have lower melting points
 - c) Oils are liquid at room temperature
 - d) Examples of oils are glyceryl trioleate, coconut oil, olive oil, etc.

6. Which of the following is not a suitable solvent for oils and fats?
- Benzene
 - CCl_4
 - CHCl_3
 - Water
7. Saponification is hydrolysis _____
- By alkalis
 - In digestive tracts of human beings
 - By acids
 - By salts
8. 15% pure ethyl alcohol (wash) on fractional distillation gives 95% ethyl alcohol by weight which is commonly known as which of the following terms?
- Wash
 - Absolute alcohol
 - Rectified spirit
 - Methylated spirit
9. Ethyl alcohol obtained by fermentation of starch or molasses is called wash, and what is its purity?
- 15%
 - 99%
 - 99.9%
 - 95%
10. Which of the following way is not a method of preparation of alcohol?
- Grignard reaction
 - Reduction of an aldehyde, ketone, or carboxylic acid with the appropriate reducing agent
 - Substitution reaction of hydroxide or water on the appropriate alkyl halide
 - Haber's process
11. A substance intentionally added that preserves flavour and improves taste is called _____
- Food additive
 - Food adulterant
 - Food contaminant
 - Food material
12. Which of the following is NOT a function of a food additive _____
- To maintain product consistency
 - Maintain nutritive value
 - Controlling acidity/alkalinity
 - None of the mentioned
13. Statement 1: All food additives are carcinogenic.
Statement 2: Food additives must be avoided as far as possible.
- True, False
 - True, True
 - False, False
 - False, True

14. The first FDA approved chemical preservative was _____

- a) Sodium pyruvate
- b) Lithium chloride
- c) Sodium Benzoate
- d) Magnesium chloride

15. Sorbates inhibit the _____ in molds.

- a) Ribosomes
- b) Dehydrogenase system
- c) Hydrolase system
- d) Invertase system

16. What is the full form of BHT?

- a) Benzoate hydroxytoluene
- b) Benzoate hydrotoluene
- c) Butylated hydroxytoluene
- d) Butylated hydroxyl triacetate

17. Which of the following is NOT a sweetener?

- a) Saccharin
- b) Maltose
- c) Pectin
- d) Mannitol

18. Which of the following sweetener is 300 times as sweet as sucrose?

- a) Saccharin
- b) Aspartame
- c) Sucralose
- d) Cyclamates

20. Which of the following is NOT a function of sweeteners?

- a) Impart sweetness to food products
- b) Provide bulk and body to food products
- c) Act as a preservative
- d) Breakdown carbohydrate into carbon dioxide and ethanol

21. _____ help in maintaining/controlling the acidic/alkaline changes during food processing and hence maintain flavor and stability.

- a) Buffering agents
- b) Sequestrants
- c) Anti-caking agents
- d) Anti-foaming agents

21. Which of the following vitamin helps in blood clotting?

- (a) Vitamin A
- (b) Vitamin C
- (c) Vitamin D
- (d) Vitamin K

22. Which is the leading cause of blindness in children worldwide?

- (a) Glaucoma
- (b) Cataracts
- (c) Colour blindness
- (d) Vitamin A deficiency

23. Which of the following nutrient deficiency causes megaloblastic anaemia?

- (a) Folic acid
- (b) Niacin
- (c) Pyridoxine
- (d) Cobalamin

24. Which of the following is a fat-soluble vitamin?

- (a) Vitamin B
- (b) Vitamin C
- (c) Vitamin B₁₂
- (d) Vitamin K

25. Which of the following is responsible for rancidity?

- a) Alkalies
- b) Ketones
- c) Aldehydes
- d) Alcohols

26. The number of milligrams of KOH required for the saponification of one gram of oil or fat is called _____

- a) Acid number
- b) Iodine number
- c) Richert-Meissl number
- d) Saponification number

27. Which of the following tells the amount of free fatty acids present in fat or oil?

- a) Acid number
- b) Iodine number
- c) Saponification number
- d) Richert-Meissl number

28. The highest levels of vitamin C are present in which of the following?

- (a) Parsley
- (b) Broccoli
- (c) Orange juice
- (d) Black currants

29. Which of the following food source are the best sources of vitamin A?

- (a) Sweet potato
- (b) Poultry
- (c) Legumes
- (d) Dairy products

30. Which of the following adulterants cause partial or complete blindness as well as harmful to the the heart?

- 1. Khesari Dal
- 2. Metanil Pelo
- 3. Argemone Oil
- 4. Rhodamine B

31. The polymers are classified into _____ types based on the nature of polymerization.

- a) 5
- b) 2
- c) 3
- d) 4

32. Combination of the organic and inorganic polymers are called _____

- a) Element organic polymers
- b) Inorganic polymers
- c) Fibres
- d) Thermoplastics

33. Which of the following polymerization mechanism can polymerize the styrene monomer?
- a) radical polymerization
 - b) anionic polymerization
 - c) cationic polymerization
 - d) all of the mentioned
34. Which of the following additives are used in the least amount with polymer in general?
- a) cross-linking agents
 - b) fillers
 - c) lubricants
 - d) plasticizers
35. Which of the following area of application restricts the use of cellulose nitrate?
- a) photographic films
 - b) lacquer coatings
 - c) tool handles
 - d) printing inks
36. Which of the following type of composite is not classified under the category of number of layers?
- a) Unidirectional fibre reinforced
 - b) Laminar
 - c) Sandwich panels
 - d) Glass-fibre reinforced
37. Nanostructures of block copolymers have a lot of applications. Which of the following is not one of them?
- a) Catalysts
 - b) Production of nanosized electronic devices
 - c) Semi-transparent antistatic coating
 - d) Water reclamation
38. Why are nanoparticle based drugs preferred for therapeutic dosages over traditional drugs?
- a) Biodegradable
 - b) High toxicity
 - c) Increased active constituent absorption
 - d) Sensitivity to salt ions
39. Why is PHB (Poly- β -hydroxybutrate), a biosynthesized polymer widely used in suture surgery?
- a) It has sustained hypoglycemic effect beyond 24 hours
 - b) It is a biosynthetic polymer
 - c) It is a high molecular polymer
 - d) It can degrade in vivo and hence does not require its removal after surgery.
40. The steel being used in the construction of aircraft must be _____ to fabricate.
- a) moderate
 - b) difficult
 - c) impossible
 - d) easy

Shri Shivaji Education Society Amravati's
Science College Congress Nagar Nagpur

Department of Chemistry

Add on course

Attendance Sheet-2023-2024

**Certificate Course in
"CHEMISTRY USEFUL IN LIFE"**

Answerkey

- 1) c) Ascorbic Acid
- 2) d) Homogenization
- 3) d) 19
- 4) a) A
- 5) a) Oils are saturated triglyceride
- 6) d) Water
- 7) a) By alkalis
- 8) c) Rectified spirit
- 9) a) 15%
- 10) d) Haber's process
- 11) a) Food additive
- 12) d) None of the mentioned
- 13) d) False, True
- 14) c) Sodium Benzoate
- 15) b) Dehydrogenase system
- 16) c) Butylated hydroxytoluene
- 17) c) Pectin
- 18) a) Saccharin
- 19) d) Breakdown carbohydrate into carbon dioxide and ethanol
- 20) a) Buffering agents
- 21) (d) Vitamin K
- 22) (d) Vitamin A deficiency
- 23) (a) Folic acid
- 24) (d) Vitamin K
- 25) c) Aldehydes
- 26) d) Saponification number
- 27) a) Acid number
- 28) (d) Black currants
- 29) (a) Sweet potato.
- 30) C) Argemone Oil

- 31) b) 2
- 32) a) Element organic polymers
- 33) d) all of the mentioned
- 34) c) lubricants
- 35) a) photographic films
- 36) d) Glass-fibre reinforced
- 37) c) Semi-transparent antistatic coating
- 38) c) Increased active constituent absorption
- 39) d) It can degrade in vivo and hence does not require its removal after surgery
- 40) d) easy

Shri Shivaji Education Society Amravati's

Science College, Congress Nagar, Nagpur

PG Chemistry ("Certificate Course in Chemistry Useful in life")

Score Card (Session 2023-24)

S.N	Roll. No.	Name	Theoy	Practical	Total	Grade
			80	20	100	
1	ku	AAFREEN NIGAR ASIF IQBAL --	52	18	70	A
2	Ku	GAURI PRADIP NASARE	80	18	98	O
3		JANHVI UMESH FATING	78	18	96	O
4		MAHEK DINESH SHINDE	54	18	72	A
5	Ku	MUSKAN SATENDRA KUMBHARE	64	16	80	A
6		NIDHI RADHESHYAM GUPTA	60	18	78	A
7	Ku	NIKHITA PANDHARI PIPARE	76	20	96	O
8	Ku	PALLAVI PARAM BORKAR	54	20	74	A
9	Ku	PRADNYA ARVIND APTE	76	18	94	O
10	Ku	PRANJU ASHOK AMBULE	60	18	78	A
11	Ku	ROHITA VISHNU PARDHI	72	18	90	A+
12	Ku	SEJAL SUBHASH THENGE	68	18	86	A+
13	Ku	SHABAHAT MD. IRFAN KHAN	78	20	98	O
14	Ku	TANAYA VINAYAK LANJEWAR	72	14	86	A+
15	Ku	TANNU DINESH SINDURKAR	74	16	90	A+
16		AMOL SHALIKRAM DHANKAR	70	18	88	A+
17	Ku	DIPALI NARENDRA DUDHE	68	18	86	A+
18		GULSHAN NILESH GOLHAR	80	14	94	O
19	Ku	KANCHAN PRABHA SANTOSH KUMAR SINGH	74	18	92	O
20	Ku	PRAKARSHA OMPRAKASH KHADSE	64	18	86	A+
21	Ku	SAKSHI SHIVAJI MOHITE	76	18	94	O
22	Ku	SAKSHI VIJAY KOTHE	76	18	94	O
23	Ku	SANA SAGIR KHAN	80	18	98	O
24	Ku	SEJAL MAHENDRA BHARNE	80	16	96	O
25	Ku	SEJAL SANJAY BULKUNDE	76	14	90	A+
26	Ku	TULIKA TAPASH BANERJEE	68	16	84	A+
27	Ku	VAISHNAVI CHANDRAKUMAR CHUTE	70	16	96	O
28	Ku	VASUKI SURESH DABHANE	60	16	76	A
29		VISHAKHA SANJAY MISAL	78	18	96	O

Skony

Dr. S. J. Kene

Course co-ordinator



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

Mr./Ku. Jayvi Fatima is awarded with certificate on successful completion of the course entitled, Certificate course in "Chemistry Useful in Life".

Session 2023-24 under Add-on course conducted for 30 hours from 16/01/2024 to 16/04/2024 by Department of Chemistry, SSESAs, Science College, Congress Nagar, Nagpur 440012.

He/She has passed the Examination with Q Grade.

Sony
Dr. Mrs. S. J. Kene

Coordinator, Department of Chemistry

M. P. Dhole
Prof. M. P. Dhole

Principal, Science College, Nagpur

SHRI SHIVAJI EDUCATION SOCIETY, 'AMRAVATI' SCIENCE COLLEGE, NAGPUR

Academic Session: 2023-24

PG DEPARTMENT OF Chemistry (M.Sc. Sem II)

Title of the course: Add On Course - "Chemistry Useful in life"

Attendance Sheet: -Batch A

Theory / Practical

Sr. No	Roll No.	Students Full Name	Date	Period																			
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Ku	AAFREEN NIGAR ASIF IQBAL ----		19/01/24	20/01/24	27/01/24	21/02/24	31/02/24	9/02/24	10/02/24	16/02/24	17/02/24	23/02/24	24/02/24	1/03/24	21/03/24	9/03/24	15/03/24	16/03/24	22/03/24	23/03/24	30/03/24	1/04/24
2		GAURI PRADIP NASARE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ku	JANHVI UMESH TATING		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ku	MAHEK DINESH SHINDE		A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ku	MUSKAN SATENDRA KUMBHARE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ku	NIDHI RADHESHYAM GUPTA		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ku	NIKHITA PANDHARI PIPARE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ku	PALLAVI PARAM BORKAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Ku	PRADNYA ARVIND APTE		A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Ku	PRANJU ASHOK AMBULE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Ku	ROHITA VISHNU PARDHI		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Ku	SEJAL SUBHASH THENGHE		A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Ku	SHABAHAT MD. IRFAN KHAN		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Ku	TANAYA VINAYAK LANJEWAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Ku	TANNU DINESH SINDURKAR		A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Singh

SHRI SHIVAJI EDUCATION SOCIETY, 'AMRAVATI' SCIENCE COLLEGE, NAGPUR

Academic Session: 2023-24

PG DEPARTMENT OF Chemistry (M.Sc. Sem IV)

Title of the course: Add On Course - "Chemistry Useful in life"

Attendance Sheet: - Batch B

Theory / Practical

Sr. No	Roll No.	Students Full Name	Date	
			Period	
1	Ku	AMOL SHAUKRAM DHANKAR	1	19/01/24
2	Ku	DIPALI NARENDRA DUDHE	2	20/01/24
3	Ku	GULSHAN NILESH GOLHAR	3	27/01/24
4	Ku	KANCHAN PRABHA SANTOSH	4	21/02/24
5	Ku	PRAKASHA OMPRAKASH KHADSE	5	3/02/24
6	Ku	SAKSHI SHIVAJI MOHITE	6	9/02/24
7	Ku	SAKSHI VIJAY KOTHE	7	10/02/24
8	Ku	SANA SAGIR KHAN	8	16/02/24
9	Ku	SEJAL MAHENDRA BHARNE	9	17/02/24
10	Ku	SEJAL SANJAY BULKUNDE	10	23/02/24
11	Ku	TULIKA TAPASH BANERJEE	11	24/02/24
12	Ku	VAISHNAVI CHANDRAKUMAR CHUTE	12	11/03/24
13	Ku	VASUKI SURESH DABHANE	13	21/03/24
14	Ku	VISHAKHA SANJAY MISAL	14	9/03/24
			15	15/03/24
			16	16/03/24
			17	22/03/24
			18	23/03/24
			19	30/03/24
			20	11/04/24

Strong

Action Taken Report

Total 29 students were benefitted by this course in **Chemistry Useful in Life** and it was very helpful to expand their Entrepreneurship knowledge and skills. It also encouraged their innovation by bringing new technique and services to society.

SSES Amit's Science College Congress Nagar Nagpur

**Certificate course in
Chemistry Useful in Life
Department of Chemistry**

2023-24

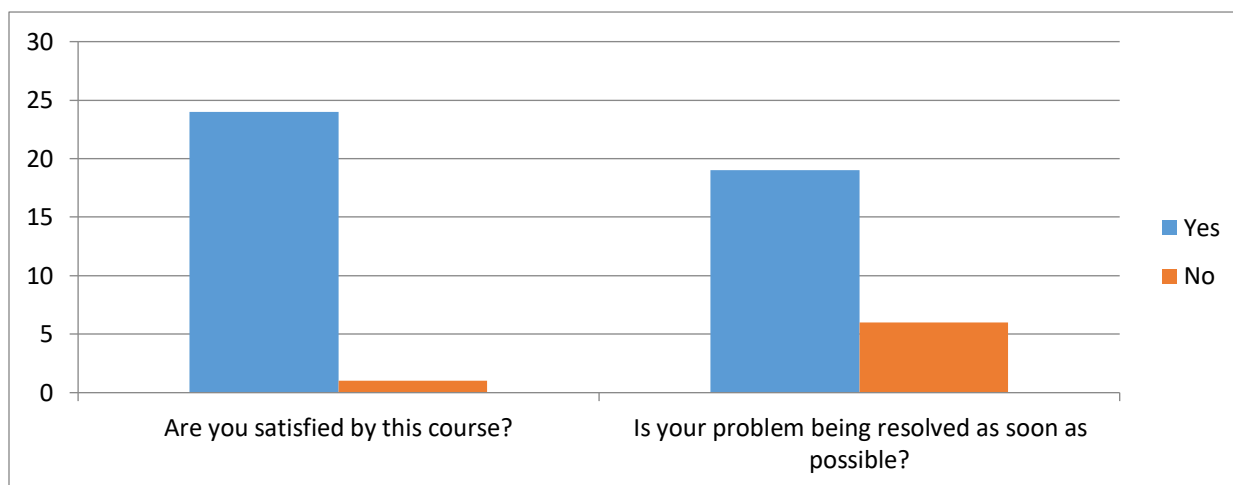
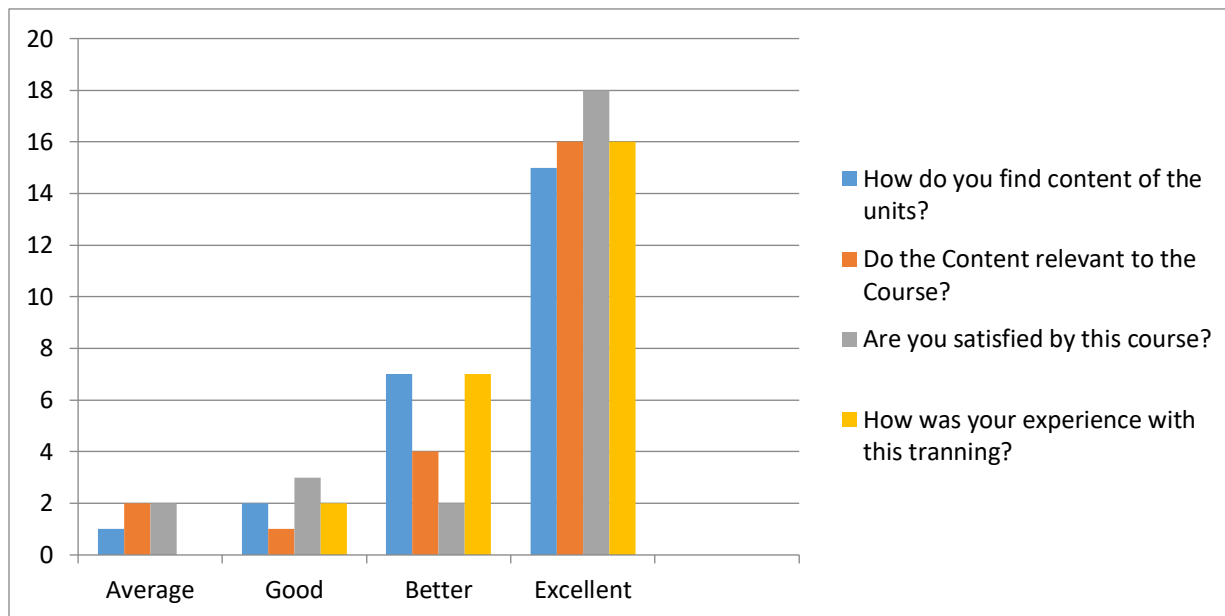
Feedback Analysis

1. Numbered of students enrolled for the certificate course-**29**
2. Number of students successfully completed the certificate course-29
3. Number of students successfully submitted feedback -29

Questions:

- 1) How do you find content of the units?
- 2) Do the Content relevant to the Course?
- 3) Is your problem being resolved as soon as possible?
- 4) Are you satisfied by this course?
- 5) Will you want to join advanced course?
- 6) How was your experience with this training?

Graphical Representation



Skory
Course Coordinator

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

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