



Shikshan Prasarak Mandal's

Jawahar Arts Science and Commerce College

Anadur, Tq.Tuljapur Dist – Osmanabad 413603

Department of Chemistry

Date: 31/07/2017

Notice

All the faculty members of Chemistry Department are hereby informed that a meeting of our department will be held on day 31/07/2017 under the chairmanship of our head Dr. M. M. Langade to discuss the following agenda. So everyone should attend on time.

Agenda for meeting:

1. To read and confirm the Proceeding of last meeting.
2. To read and confirm the certificate course.
3. To discuss and design the structure of certificate course.
4. To prepare and frame the syllabus of certificate course.
5. To formulate the BOS.
6. To prepare the Time-Table of certificate course.
7. To conduct other activities regarding the course.
8. Timely topics with the permission of chairperson.


HOD



Shikshan Prasarak Mandal's

Jawahar Arts Science and Commerce College

Anadur, Tq. Tuljapur Dist – Osmanabad 413603

Department of Chemistry

Date: 31/07/2017

Proceeding of Chemistry Departmental Meeting

Today 31/07/2017 a meeting was held in department of chemistry under the chairperson Dr. M. M. Langde (HOD). In this meeting discussion made on how the conduct the certificate course in 'Soap and Detergents'. All faculties are unanimously agreed to run this certificate course for B.Sc.I students. Discussion was successful regarding to construct the syllabus, timetable, the nature of Question paper and the admission form. All faculties assured each other to give healthy contribution for running this course and all other efforts needed. Finally all faculties are firmly decided to construct the syllabus, timetable, sample question paper and admission form and to convey Hon. Principal for further approval from College Development Committee.

- Dr. D. N. Gatlwar
- Dr. V. G. Mane
- Dr. A. M. Pachpinde

Dr. M. M. Langde
Head, Dept. of Chemistry

PRINCIPAL
Jawahar Arts, Science & Commerce
College, Anadur,
Tal. Tuljapur, Dist. Osmanabad.



Shikshan Prasarak Mandal's

Jawahar Arts Science and Commerce College

Anadur, Tq. Tuljapur Dist – Osmanabad 413603

Department of Chemistry

Date: 01/08/2017

To,
Principal,
JASC College, Anadur.
Tq. Tuljapur, Dist. Osmanabad.

Sub: Regarding Approval for Short Term Certificate Course in Soap and Detergent.

Respected Madam,

With reference to above cited subject I am kindly informing you that a departmental meeting of chemistry was held on date 31/07/2017. In this meeting all faculties are unanimously decided to conduct a certificate course in "**Soap and Detergents**" during this academic year 2017-18. In this meeting we all faculty also make an action plan to run this certificate course with all necessary formalities.

So I kindly request you to grant an approval to conduct said short term certificate course of 30 hours from 11/ 08/2017 to 09/09/2017.

Sincerely Yours,

Head,
Department of Chemistry

PRINCIPAL

Jawahar Arts, Science & Commerce
College, Anadur
Tal. Tuljapur, Dist. Osmanabad.

दुरितांचे तिमिर जावो !

Shikshan Prasarak Mandal's Anadur



JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)

President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

I/C Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

☎ :- (02471) 246037, 246737

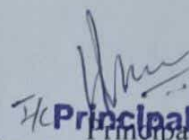
Date: 05/08/2017

To,
The Head,
Department of Chemistry,
Jawahar ASC College, Anadur,
Tq. Tuljapur, Dist. Osmanabad.

Subject: Approval to conduct the certified course for students of science.

As per the decision taken in College Development Committee, you are directed to conduct the Certificate course in Soaps and Detergents in your department for the students of our college. The course should be of 30 hours and be conducted in the academic year 2017-2018.

Convey your timetable of the said course to the timetable committee so as to avoid any overlapping of lecturers.


Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad

SYLLABUS

Certificate Course in "Soap and Detergents"

Unit I

1. Introduction of oils and fats, their sources, structure and composition of oils and fats, glycerides and fatty acids, their nomenclature, classification.
2. Natural sources of oils and fats, Position in India in relation to the world production of oils and fats.

Unit II

3. Introduction of soaps, synthetic detergents, raw materials for soaps and their selection, selection of other auxiliary raw materials.
4. General principles of soap making, chemistry of soap boiling and saponification reaction, manufacture of soap (cold, hot and semi boiled process), bleaching of soap, and manufacture of toilet soap.

Unit III

5. Various types of detergents, classification of detergents (anionic, cationic, nonionic, amphoteric), biodegradability.
6. Inorganic compounds of detergents (builder & other additives, phosphates, silicates, zeolites, etc)

Unit IV

7. Synthetic detergents (raw materials)
 - i. Organic raw materials for manufacturing of fatty acids, olefins, alkylbenzene, methylesters, fatty amines, ethylene oxide, propylene oxide sources and manufacture.
 - ii. Inorganic raw material for sulphonation viz; sulphuric acid, sulphonic acid, oleum, sulphur trioxide, chlorosulphonic acid.
 - iii. Sulphonation of organic raw materials like fatty acids, fatty acids ethoxylates plants and processes.
 - iv. Sulphonation of alkylbenzene, olefins & vegetable oils, plants and processes.

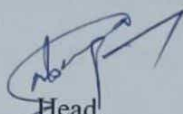
LIST OF EXPERIMENTS

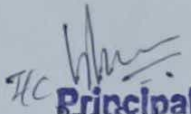
- 1) Determination of physico-chemical characteristics of oil and fats
 - a. Moisture content
 - b. Acid value
 - c. Iodine value
 - d. Saponification reaction and Saponification value
- 2) Manufacture of liquid soap (shampoo) and laundry soap.

LIST OF BOOKS

S.No.	Author	Title	Edition	Publisher
1.	K.S. Parasuram	Soaps & detergents		
2.	NIIR Board	Handbook on Soaps, Detergents & Acid Slurry		Asia Pacific Business Press
3.	J.G. Kane	Soaps: Their Chemistry & Technology	First	Dr. R. Sarkarar
4.	Anthony M. Schwartz, James W. Perry & Julian Berch	Surface Active Agents & Detergents	Vol. II	Interscience Publishers
5.	Benjamin Levitt	Oils, Detergents & Maintenance		Chemical Publishing Company
6.	NIIR Board	The Complete Technology Book on Soaps		Asia Pacific Business Press
7.	George T. Austin	Shreve's Chemical Process Industries	Fifth	McGraw-Hill


 Coordinator


 Head,
 Dept. of Chemistry


Principal
 Jawahar Arts, Science & Commerce College
 Anapur, Tal. Tuljapur, Dist. Osmanabad

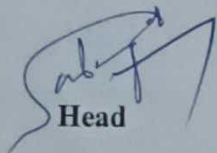
Jawahar Arts, Science & Commerce College, Anadur


Department of Chemistry

Conducting Co-curricular course

“Soaps and Detergents”

- | | |
|--------------------------|--------------------------------------------------------------------------------|
| 1. Name of Department: | Chemistry |
| 2. Type of Programme: | value added / skill based certificate course |
| 3. Title of Programme: | Certificate course in “Soaps and Detergents” |
| 4. Name of Co-ordinator: | Dr. Amol Murlidhar Pachpinde |
| 4. Faculty offered: | B.Sc |
| 5. Name of Teachers: | Dr. M. M Langde
Dr. D. N. Gatlewar
Dr. V. G. Mane
Dr. A. M. Pachpinde |
| 6. Duration: | 30 hours |
| 7. Theory: | 15 Hours |
| 8. Practical: | 15 Hours. |


Head


Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanahad

Jawahar Arts, Science & Commerce College, Anadur

Department of Chemistry

Certificate Course on Soaps and Detergents

Student registration form (2017-18)

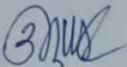
Name of Student: -----

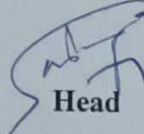
Class and Roll No: -----

Contact No: -----


Email address: -----

Corresponding Address: -----


Co-coordinator


Head

Signature of Student


Principal

Jawahar Arts, Science & Commerce College
Anadur Tal: Tulnour, Dist. Osmanabad

दुरितांचे तिमिर जावो !

Shikshan Prasarak Mandal's Anadur

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)



President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

I/C Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

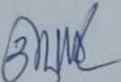
☎ :- (02471) 246037, 246737


Date: 07/08/2017

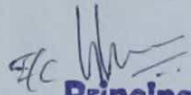
Notice

All the students of science faculty are hereby informed that the Department of chemistry is going to conduct a value added / skill based certificate course on "Soaps and Detergents" during this academic year 2017-18 from 11/ 08/2017 to 09/09/2017 (30 hours).

The interested students may enroll their name with Mr. Dilip Chavan at department of chemistry before 09/08/2017.


Coordinator


Head


Principal
Jawahar Arts, Science & Commerce College
Anadur Tal. Tuljapur, Dist. Osmanabad

Jawahar Arts, Science and Commerce College, Andur


Department of Chemistry

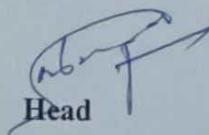
Certificate Course on Soaps and Detergents

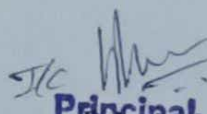
Enrollment List of Students 2017-18

Sr. No	Roll Number	Name of Student	Mobile No.	Class
1	AA-01	Mendhapure Shweta Vijay	Female	9689796449
2	AA-02	Mokashe Onkar Kondiba	Male	9890144737
3	AA-03	Mule Dattatray Uddhav	Male	7249307569
4	AA-04	Mule Ujwala Subhash	Female	9130299976
5	AA-05	Mule Vibhavari Narshing	Female	9765115573
6	AA-06	Murte Sugal Siddheshwar	Female	9765742837
7	AA-07	Navgire Sushma Subhash	Female	9922314782
8	AA-08	Nidoni Girish Hanmantappa	Male	9975724548
9	AA-09	Palampalle Balaji Shivaji	Male	7769834984
10	AA-10	Patil Rakesh Rajshekar	Male	7507053288
11	AA-11	Patil Shrikant Bharat	Male	9145399544
12	AA-12	Pawar Akash Raju	Male	9011089404
13	AA-13	Pawar Balaji Shridhar	Male	9156900128
14	AA-14	Pawar Jivan Nagnath	Male	9923219672
15	AA-15	Pawar Rahul Subhash	Male	9588439588
16	AA-16	Pinjari Javed Mahamad	Male	8530494860
17	AA-17	Potdar Dikshit Balaji Gajanan	Male	7263828832
18	AA-18	Rathod Akash Kavt	Male	9923842972
19	AA-19	Rathod Atish Manik	Male	7522913929
20	AA-20	Rathod Avinash Anil	Male	9130460850
21	AA-21	Rathod Dhanraj Balu	Male	7262045572
22	AA-22	Rathod Gorakh Shankar	Male	9421914774
23	AA-23	Rathod Lakhan Subhash	Male	9604647573
24	AA-24	Rathod Mahesh Babu	Male	9637825759
25	AA-25	Rathod Minaxi Shankar	Female	9421914774
26	AA-26	Rathod Swapnali Bankat	Female	9422521143
27	AA-27	Rathod Swapnil Suresh	Female	7843008432
28	AA-28	Rathod Upendra Subhash	Male	7721926975
29	AA-29	Sadafule Makarand	Male	7875121131
30	AA-30	Sagar Ganesh Ashok	Male	9145405212

Sr. No.	Male/Female	Total No. of Students
1	Male	22
2	Female	08
Total		30


Co-ordinator
(Dr. A. M. Pachpinde)


Head


Principal
Jawahar Arts, Science & Commerce College
Andur Tal. Talasur, Dist. Osmanabad

Department of Chemistry
Jawahar Arts, Science and Commerce College, Anadur

Add on Course on Food Chemistry

Theory Time Table – 2017-18

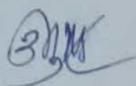
Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
03.00 pm to 04.00pm	PAM	DNG	VGM	LMM	---	----

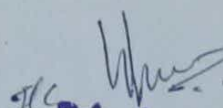
Practical Time Table – 2017-18

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
03.00 to 05.30	--	--	--	---	PAM	DNG

List of Faculty Contributing for this Course

- Dr. M. M Langde
- Dr. D. N. Gatilewar
- Dr. V. G. Mane
- Dr. A. M. Pachpinde




Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad

Jawahar Arts, Science and Commerce College, Anadur
Department of Chemistry
Certificate Course on "Soaps and Detergents"

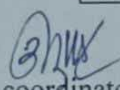
Date : 08/09/2017

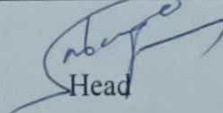
Notice

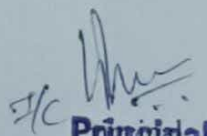
All the students enrolled in certificate course in food chemistry run by department of chemistry are hereby informed that the Department of chemistry is going to conduct a final test on "Soaps and Detergents" during this month on

Time-Table for Exam 2017-18

Sr. No	Roll. Number	Name of Student	Hall Number
1	AA-01	Mendhapure Shweta Vijay	05
2	AA-02	Mokashe Onkar Kondiba	
3	AA-03	Mule Dattatray Uddhav	
4	AA-04	Mule Ujwala Subhash	
5	AA-05	Mule Vibhavari Narshing	
6	AA-06	Murte Sugal Siddheshwar	
7	AA-07	Navgire Sushma Subhash	
8	AA-08	Nidoni Girish Hanmantappa	
9	AA-09	Palampalle Balaji Shivaji	
10	AA-10	Patil Rakesh Rajshekar	
11	AA-11	Patil Shrikant Bharat	
12	AA-12	Pawar Akash Raju	
13	AA-13	Pawar Balaji Shridhar	
14	AA-14	Pawar Jivan Nagnath	
15	AA-15	Pawar Rahul Subhash	
16	AA-16	Pinjari Javed Mahamad	06
17	AA-17	Potdar Dikshit Balaji Gajanan	
18	AA-18	Rathod Akash Kavt	
19	AA-19	Rathod Atish Manik	
20	AA-20	Rathod Avinash Anil	
21	AA-21	Rathod Dhanraj Balu	
22	AA-22	Rathod Gorakh Shankar	
23	AA-23	Rathod Lakhan Subhash	
24	AA-24	Rathod Mahesh Babu	
25	AA-25	Rathod Minaxi Shankar	
26	AA-26	Rathod Swapnali Bankat	
27	AA-27	Rathod Swapnil Suresh	
28	AA-28	Rathod Upendra Subhash	
29	AA-29	Sadafule Makarand	
30	AA-30	Sagar Ganesh Ashok	


Co-coordinator


Head


Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Anadur, Dist. Osmanabad

Department of Chemistry

Jawahar Arts, Science and Commerce College, Anadur

Add on Course on "Soaps and Detergents"

Question Paper – 2018

Date: 09/09/2017

All questions are necessary

Each Ques. Carry 2 marks.

Total Marks: 50

1. Soap was invented as long ago as:
 - A. 200 years
 - B. 1000 years
 - C. 2000 years
2. Soaps were originally made from:
 - A. proteins
 - B. animal fats and vegetable oils
 - C. chemicals extracted from the soil
3. Today's soaps are synthesized from products including:
 - A. plastics
 - B. sodium hydroxide and alcohol
 - C. proteins and hydrochloric acid
4. In a school laboratory, soap is usually made from:
 - A. vegetable oil, sodium hydroxide and some alcohol
 - B. methylated spirits (also called denatured alcohol) and any acid
 - C. acids and caustic soda
5. Soaps work because the "water-loving" end of the soap molecule attracts a water molecule and the "water-hating" end attracts:
 - A. other soap molecules
 - B. water molecules also
 - C. grease or dirt
6. The scientific term for "water-loving" is:
 - A. hydrophilic
 - B. hydroxide
 - C. hydrophobic
7. The scientific term for "water-hating" is:
 - A. hydroxide
 - B. hydrophilic
 - C. hydrophobic

8. The "water-loving" end of the soap molecule has a charge that is:
A. positive
B. negative
C. either positive or negative
9. The water-repelling end of the soap molecule has a:
A. negative charge
B. positive charge
C. neutral or no charge
10. Hard water contains a lot of calcium and:
A. magnesium salts
B. sodium salts
C. potassium salts
11. Hard water does not wash clothes well because:
A. the salts speed up the cleaning action and hard water contains insufficient salts to do this
B. the salts react with the soap to form a grey scum instead of attaching to the dirt particles
C. the water is hard to touch and it is unpleasant for people to touch the water when washing clothes
12. The type of water that produces the greatest lather of bubbles is:
A. any type of water
B. hard water
C. soft water
13. Soaps and detergents that can be easily broken down by bacteria in the environment to form harmless substances are termed:
A. biodegradable
B. non-biodegradable
C. environmentally unfriendly
14. The additive in many soaps and detergents that greatly harm the environment is:
A. perfume
B. salts
C. phosphates
15. When phosphates from cleaning products reach our waterways, they encourage the rapid growth of algae. This in turn extracts too much oxygen from the water and fish suffocate. This harmful process is:
A. phosphatization
B. eutrophication


16. Saponification is the value of oil for which the number of mgs of KOH required to saponify the _____ present in the 1g of oil.
- A. Fatty materials
 - B. Salts
 - C. Free acids
17. Which of the following is not saponifiable?
- a) Ground nut oils
 - b) Mineral oils
 - c) Castor oil
18. _____ get large amount of alkali to hydrolysis.
- a) Baby oil
 - b) Liquid paraffin
 - c) Vegetable oil
19. The saponification value of vegetable oil is _____
- a) Very high
 - b) Very low
 - c) Moderate
20. Iodine value is used to determine...
- a) Degree of acidity
 - b) Degree of unsaturation
 - c) Degree of saponification
21. 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) Saponification
22. Iodine number is defined as number of grams of iodine needed for the iodination ofgram of oil or fat.
- a) 1
 - b) 5
 - c) 100
23. Which of the following tells the amount of free fatty acids present in fats or oils?
- a) Acid number
 - b) Iodine number
 - c) Saponification number

24. Sodium alkyl sulphonate is

- a) Anionic surfactant
- b) Cationic surfactant
- c) Non ionogenic surfactant

25. Which among the following is a common salt in Detergents?

- a) Sulphonate
- b) Nitrate
- c) Oxalate


PRINCIPAL
Sawahar Arts, Science & Commerce
College, Anantapur,
Tal. Tulunur, Dist. Uppanabad.

Department of Chemistry

Jawahar Arts, Science and Commerce College, Anadur

Add on Course on "Soaps and Detergents"

Question Paper – 2018

Date: 09/09/2017

All questions are necessary

Each Ques. Carry 20 marks.

Total Marks: 40

Q.1 Determine the saponification value of coconut oil.

20 M

Q.2 Prepare laundry soap from given used cooking oil.

20 M

-----*****-----


PRINCIPAL

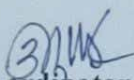
Jawahar Arts, Science & Commerce
College, Anadur
Tal. Tujapur, Dist. Osmanabad.

Department of Chemistry
Jawahar Arts, Science and Commerce College, Anadur

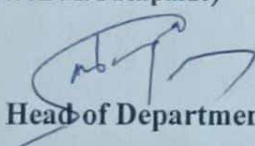
Add on Course on Soaps and Detergents

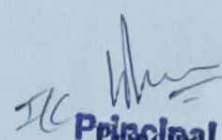
Mark List – 2018

Sr. No	Roll. No.	Name of Student	Theory	Practical	Viva	Total
			50	40	10	100
1	AA-01	Mendhapure Shweta Vijay	46	37	7	90
2	AA-02	Mokashe Onkar Kondiba	42	36	6	84
3	AA-03	Mule Dattatray Uddhav	38	34	9	81
4	AA-04	Mule Ujwala Subhash	36	28	5	69
5	AA-05	Mule Vibhavari Narshing	40	26	6	72
6	AA-06	Murte Sugal Siddheshwar	40	25	6	71
7	AA-07	Navgire Sushma Subhash	38	38	7	83
8	AA-08	Nidoni Girish Hanmantappa	45	38	8	91
9	AA-09	Palampalle Balaji Shivaji	42	39	5	86
10	AA-10	Patil Rakesh Rajshekar	36	35	8	79
11	AA-11	Patil Shrikant Bharat	42	35	9	86
12	AA-12	Pawar Akash Raju	39	24	9	72
13	AA-13	Pawar Balaji Shridhar	41	27	7	75
14	AA-14	Pawar Jivan Nagnath	36	28	6	70
15	AA-15	Pawar Rahul Subhash	39	26	7	72
16	AA-16	Pinjari Javed Mahamad	41	36	7	84
17	AA-17	Potdar Dikshit Balaji Gajanan	38	38	8	84
18	AA-18	Rathod Akash Kavt	43	36	7	86
19	AA-19	Rathod Atish Manik	35	36	8	79
20	AA-20	Rathod Avinash Anil	45	39	7	91
21	AA-21	Rathod Dhanraj Balu	39	28	7	74
22	AA-22	Rathod Gorakh Shankar	45	33	6	84
23	AA-23	Rathod Lakhan Subhash	36	36	6	78
24	AA-24	Rathod Mahesh Babu	41	38	8	87
25	AA-25	Rathod Minaxi Shankar	38	39	7	84
26	AA-26	Rathod Swapnali Bankat	35	30	8	73
27	AA-27	Rathod Swapnil Suresh	46	29	7	82
28	AA-28	Rathod Upendra Subhash	33	37	8	78
29	AA-29	Sadafule Makarand	37	36	8	81
30	AA-30	Sagar Ganesh Ashok	43	34	9	86


Co-ordinator

(Dr. A. M. Pachpinde)


Head of Department


Principal
 Jawahar Arts, Science & Commerce College
 Anadur, Tal. Talajapur, Dist. Osmanabad

REPORT
OF
SHORT TERM CERTIFICATE COURSE
Soaps and Detergents

Academic Year-2017-18

The Principal,
Jawahar Arts, Science and Commerce College,
Anadur. Dist. Osmanabad.

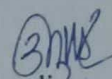
Respected Madam,

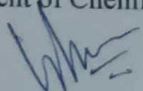
As per the directions of the Principal, Jawahar Arts, Science and Commerce College Anadur and resolution in the Departmental meeting held on 31/07/2017. The Department of Chemistry conducted a 30 hours short term certificate course for the under graduate students of Jawahar Arts, Science and Commerce College, Anadur. The course was entitled as "**Soaps and Detergents.**"

The Principal objectives of the courses were as follows

- To introduce students about oils and fats, their sources, structure and composition of oils and fats, glycerides and fatty acids, their nomenclature, classification
- To learn theoretical and practical knowledge behind cleaning action of soaps and detergents.
- To empower the students with knowledge of soap and detergent making

The course was held from 11/08/2017 to 09/09/2017. Total 30 Students were enrolled and attended the course. The participants were appreciative of the training and they enjoyed every new thing in learning. The participants expressed their desire to share the knowledge gained with other students in their class. Overall the short term certificate course is completed successfully.


Coordinator
Department of Chemistry


PRINCIPAL
Jawahar Arts, Science & Commerce
College, Anadur
Tal. Tuljapur, Dist. Osmanabad.