CERTIFICATE COURSE

CHEMISTRY IN DAILY LIFE

CHEMISTRY IN EVERYDAY LIFE

By

Department of chemistry,

Govertment Degree College, luxettipet.

GOVERMENT DEGREE COLLEGE, LUXETTIPET

PERMISSION LETTER

DATE: 05-02-2020.

To

The Principal
Government Degree college
Luxettipet.

Respected Sir,

Sub: Request for grant of permission to conduct ***Certificate course***
On ***Chemistry in daily life***.

As per the subject cited above I, *T.MANJULA*, Asst Prof of chemistry is intended to conduct a Certificate course on Chemistry in daily life which may enhance the skills in the students. Schedule for conduction of certificate course is from 06/02/2020 to 12/03/2020. Hence I kindly request you to grant me permission in this regard.

Thanking you sir

Yours Sincerely

T.Manjula
Asst Prof of Chemistry

Permitted letter

T.K.../05/2/2020

Principal
Govt. Degree College,
Luxettipet-504 215

GOVERNMENT DEGREE COLLEGE LUXETTIPET

NOTICE

DATE: 5/02/2020

It is hereby informed to the students of I,II and III Year ,that a Certificate course will be conducted by department of chemistry on 06/02/2020 to 12/3/2020 in view of making the learning more Awareness in chemistry in daily life. .Hence I inform the all the students to enroll your names, and make it success.

T. MANJULA

Department of CHEMISTRY

Principal

Principal
Govt. Degree College,
Luxettipet-504 215

CHEMISTRY IN DAILY LIFE

CERTIFICATE COURSE

Syllabus:

1) Introduction: PRELIMINARY INFORMATION
   Tooth paste, Soap, Detergent, Sanitizer, Shampoo..... Daily using items composition and their applications. 5hrs

2) Medicines: Paracetomol, Aspirin..... Preparations, Composition, Chemical formula, Applications and Side effects. 5hrs

3) Dyes: Azodye preparation, some synthetic dyes composition and uses 5hrs

4) Disinfectants : Chemical composition and applications
   N – chloro P – toluene suffonamide , P- chloro-m- xylenol –antiviral activity, microbiological activity 5hrs

5) Chemical agents commonly used as Disinfectants and Antiseptics :
   Phenolics - Hexachlorophene 5hrs

6) Polymers in Daily life :
   Bakelite, Polyethylene, Polyester, Nylon and Biodegradable polymers 5hrs

T.K...

Principal
Govt. Degree College,
Luxettipet-504 215

GOVERNMENT DEGREE COLLEGE, LUXETTIPET

CHEMISTRY IN DAILY LIFE

LIST OF STUDENTS ENROLLED

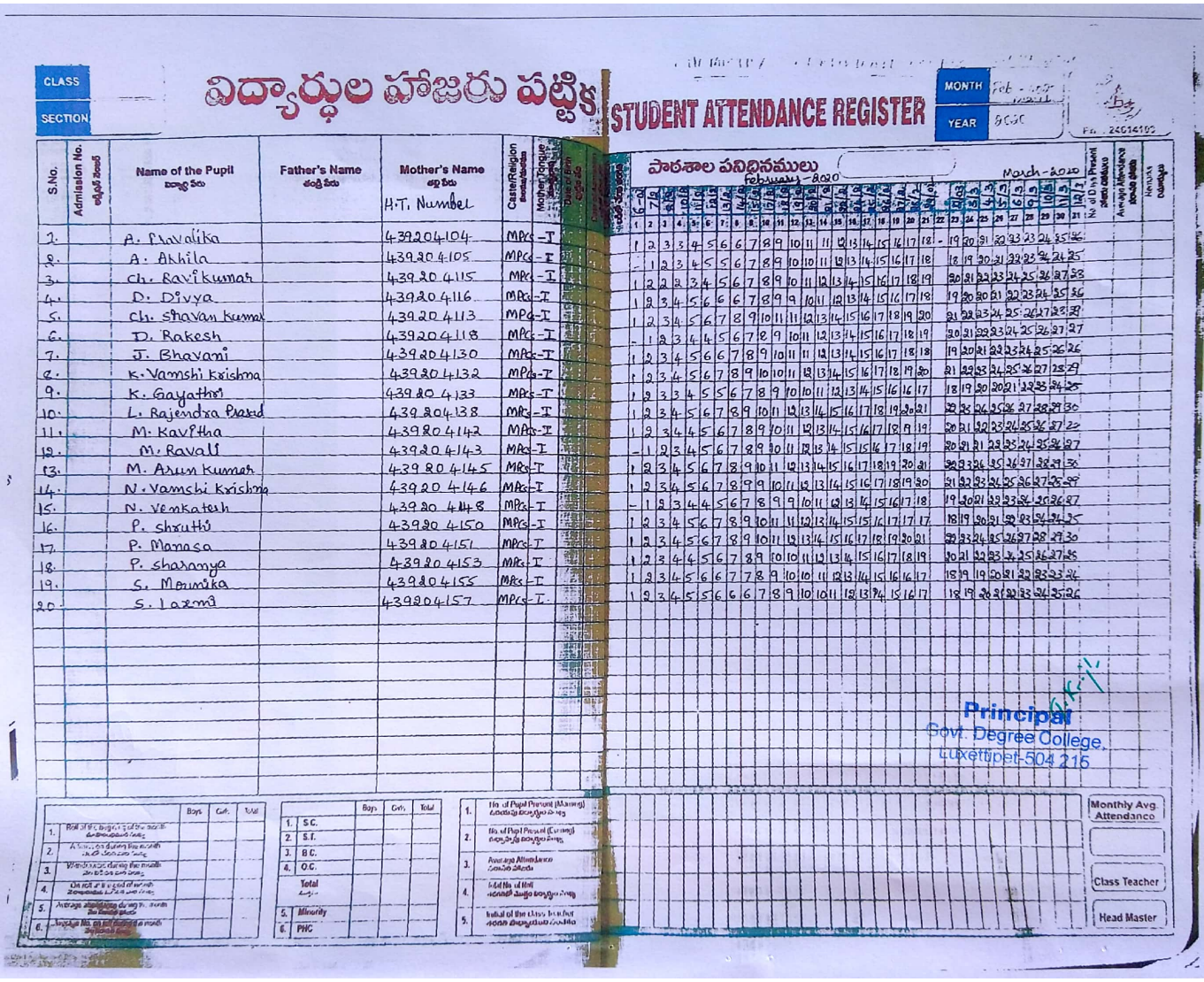
CERTIFICATE COURSE

Date: 06-02-2020

Sl no	Name of the Student	Hall ticket number	Course and year	signature
1.	A. Pravalika	439204104	MPCs-Ist	Pravalika
2.	A. AKhila	439 20 4105	MPCs-Ist	
3.	Ch. Ravi Kumar	439 20 4115	MPCs-Ist	
4.	D. Divya	439 20 4116	MPCs-Ist	Divya
5.	Ch. sravan Kumar	439 20 4113	MPCs-Ist	
6.	D. Rakesh	439204118	MPCs-Ist	Rakesh
7.	J. Bhavani	439 20 4130	MPCs-Ist	
8.	K. Vamshi Krishna	439 20 4132	MPCs-Ist	
9.	K. Gayathri	439 20 4133	MPCs-Ist	Gayathri
10.	L. Rajendra Prasad	439 20 4138	MPCs-Ist	Raj
11.	M. Kavitha	439 20 4142	MPCs-Ist	Kavitha
12.	M. Ravali	439 20 4143	MPCs-Ist	Ravali
13.	M. Arun Kumar	439 20 4145	MPCs-Ist	
14.	N. Vamshi Krishna	439 20 4146	MPCs-Ist	
15.	N. Venkatesh	439 20 4148	MPCs-Ist	Venk
16.	P. Shruthi	439 20 4150	MPCs-Ist	Sruthi
17.	P. Manasa	439 20 4151	MPCs-Ist	P.Manasa
18.	P. sharanya	439 20 4153	MPCs-Ist	Sharanya
19.	S. Mounika	439 20 4155	MPCs-Ist	
20.	S. Laxmi	439 20 4157	MPCs-Ist	Laxmi

T.K.J.L

Principal
Govt. Degree College,
Luxettipet-504 215



CLASS

SECTION

విద్యార్థుల హాజరు పట్టిక

STUDENT ATTENDANCE REGISTER

MONTH Feb - Mar

YEAR 2020

Ph. 24014102

పాఠశాల పనిదినములు February - 2020 March - 2020

S.No.	Admission No. అడ్మిషన్ నెంబర్	Name of the Pupil విద్యార్థి పేరు	Father's Name తండ్రి పేరు	Mother's Name తల్లి పేరు H.T. Number	Caste/Religion కులం/మతం	Mother Tongue	Date of Birth పుట్టిన తేది	Date of Admission పాఠశాలలో చేరిన తేది
1.		A. Pravalika		439204104	MPCs	I		
2.		A. Akhila		439204105	MPCs	I		
3.		Ch. Ravikumar		439204115	MPCs	I		
4.		D. Divya		439204116	MPCs	I		
5.		Ch. Shavan Kumar		439204113	MPCs	I		
6.		D. Rakesh		439204118	MPCs	I		
7.		J. Bhavani		439204130	MPCs	I		
8.		K. Vamshi Krishna		439204132	MPCs	I		
9.		K. Gayathri		439204133	MPCs	I		
10.		L. Rajendra Prasad		439204138	MPCs	I		
11.		M. Kavitha		439204142	MPCs	I		
12.		M. Ravali		439204143	MPCs	I		
13.		M. Arun Kumar		439204145	MPCs	I		
14.		N. Vamshi Krishna		439204146	MPCs	I		
15.		N. Venkatesh		439204148	MPCs	I		
16.		P. Shruthi		439204150	MPCs	I		
17.		P. Manasa		439204151	MPCs	I		
18.		P. Sharanya		439204153	MPCs	I		
19.		S. Manuka		439204155	MPCs	I		
20.		S. Laxmi		439204157	MPCs	I		

	Boys	Girls	Total
1. Roll of the begin of the month			
2. Admissions during the month			
3. Withdrawn during the month			
4. On roll at the end of the month			
5. Average attendance for the month			
6. Percentage of attendance for the month			

	Boys	Girls	Total
1. S.C.			
2. S.T.			
3. B.C.			
4. O.C.			
Total			
5. Minority			
6. PHC			

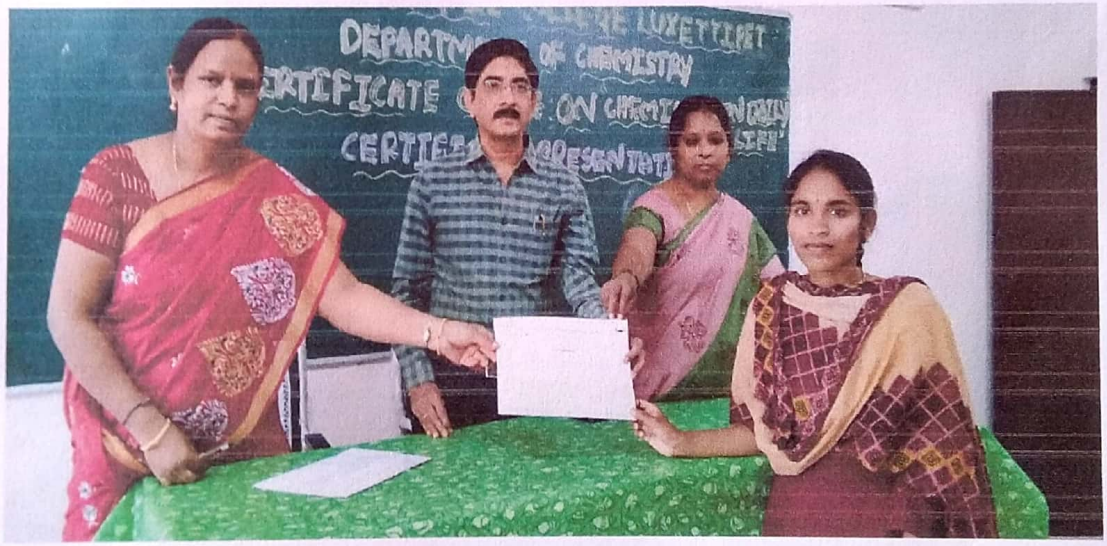
1. No. of Pupil Present (Morning)	
2. No. of Pupil Present (Evening)	
3. Average Attendance	
4. Mid Day Meal	
5. Initial of the Class Teacher	

Monthly Avg. Attendance

Class Teacher

Head Master

Principal
Govt. Degree College,
Luxettipet-504 215



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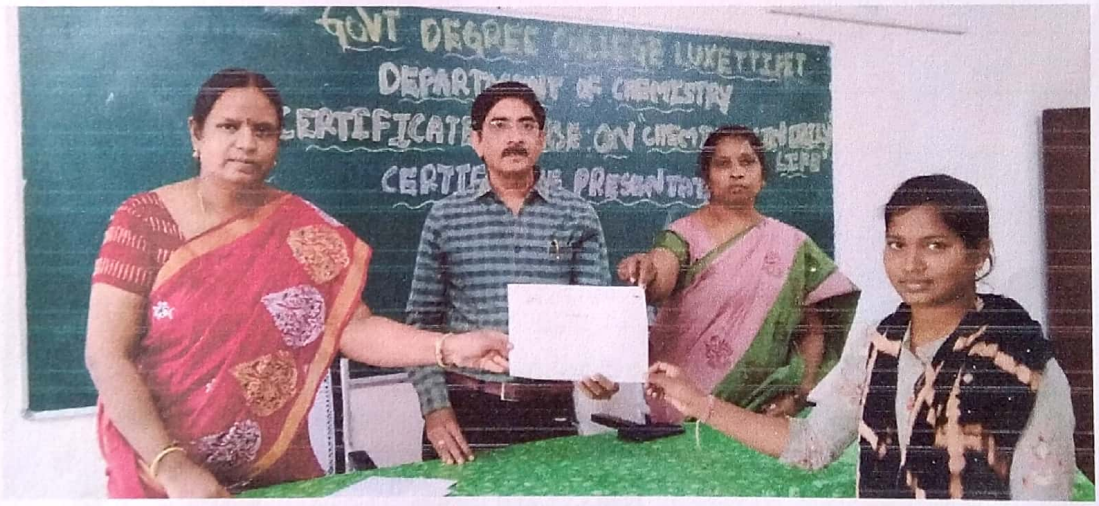

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45/50

GOVERNMENT DEGREE COLLEGE LUXETTIPET

EXAMINATION

CHEMISTRY IN DAILY LIFE

Ch. Sravan Kumar
4392041113

Max.Marks: 50

Date: 11/03/2020

Multiple choice question **5X2=10**

1. The commercial name of polyacrylonitrile is..... ( ) B
   a)Dacron
   b)Orlon(acrilan)
   c)PVC
   d)Bakelite
2. Which of the following statements is not true about low density polythene ( ) C
   a)Tough
   b) Hard
   c) Poor conductor of electricity
   d) Highly branched structure
3. Vulcanisation makes rubber..... ( ) A
   a)More elastic, more stiff
   b)Crystalline
   c)Soluble in inorganic solvent
   d)None
4. Which of the following is an anionic detergent? ( ) B
   a)Sodium stearate
   b) Sodium Lauryl Sulphate
   c)Cetyl trimethyl ammonium bromide
   d) Glyceryl oleate
5. Which of the following is a bactericidal antibiotic? ( ) A
   a)Ofloxacin
   b) Tetracycline
   c)Chloramphenicol
   d)Erthromycin

Short answer questions 10X2=20

1. Name two types of chemical messengers? Nuerotransmitter, Harmones
2. Name the medicine which can act as analgesic as well as antipyretic? Paracetamol
3. Name the constituents of Dettol? Chloroxylend, isopropanol
4. Name the antibiotic used in typhoid fever? Azithromycin.
5. Why is ethanol added to soap? It has Antimicrobial Activity
6. Though saccharin is 550 times sweeter than sugar, it is used as a sweetening agent by diabetic patient why? It doesn't affect Sugar level
7. Insulin production and its action in the human body are responsible for the level of diabetes. This compound belongs to which category? Harmones
8. What is the monomer of polythene? ethene
9. What is the chemical name of natural rubber? cis - polyisoprene
10. What is monomer of Teflon? $CF_2 = CF_2$

Long Answer Questions 4X5=20

1) Explain natural dyes and synthetic dyes with examples.
2) How can you prepare azo dye in lab?
3) How do you prepare simple soap? Explain.
4) Prepare a pure sample of Paracetomol.

S Jravan kumar

1) Explain natural dyes and synthetic dyes with examples.

Ans:- * Natural dyes are obtained from plants.
ex:- Turmeric, Indigo, methyl orange.
* Synthetic dyies are prepared artificially in laboratory.
ex:- Orange G, etc...

2) How can you prepare Azo dye in lab?

Ans:- ⇒ Azo dyes are prepared by Azo coupling.
⇒ It is an electrophilic substitution reaction
⇒ Aryl diazonium cation is reacted with another compound.

$$ArN_2^+ + Ar'H \longrightarrow ArN=NAr' + H^+$$

⇒ Azo dyes are also prepared by the condensation of nitro aromatic compounds with Aniline followed by reduction.

3) How do you prepare simple soap ?

Ans:- * Mix water and lye and let it set aside.
* Boil oil more and keep it aside to let it cool.
* Blend lye water and the oil to form soap Batter.
* Pour the batter into moulds and keep it aside.

45/50

GOVERNMENT DEGREE COLLEGE LUXETTIPET

EXAMINATION

CHEMISTRY IN DAILY LIFE

K. Vamshi Krishna
HT.NO: 439204132
MPC - Ist year.

Max.Marks: 50 Date: 11-03-2020

Multiple choice question 5X2=10

1. The commercial name of polyacrylonitrile is..... b ( )
   a)Dacron
   b)Orlon(acrilan)
   c)PVC
   d)Bakelite
2. Which of the following statements is not true about low density polythene ( ) c
   a)Tough
   b) Hard
   c) Poor conductor of electricity
   d) Highly branched structure
3. Vulcanisation makes rubber..... ( ) c
   a)More elastic, more stiff
   b)Crystalline
   c)Soluble in inorganic solvent
   d)None
4. Which of the following is an anionic detergent? ( ) b
   a)Sodium stearate
   b) Sodium Lauryl Sulphate
   c)Cetyl trimethyl ammonium bromide
   d) Glyceryl oleate
5. Which of the following is a bactericidal antibiotic? ( ) b
   a)Ofloxacin
   b) Tetracycline
   c)Chloramphenicol
   d)Erthromycin

Short answer questions 10X2=20

1. Name two types of chemical messengers? Neurotrasmitters, Hormones
2. Name the medicine which can act as analgesic as well as antipyretic? Paracetomol
3. Name the constituents of Dettol? chloroxylenol and α-terpineol
4. Name the antibiotic used in typhoid fever? —?
5. Why is ethanol added to soap? Because ethanol has antimicrobial Activity
6. Though saccharin is 550 times sweeter than sugar, it is used as a sweetening agent by diabetic patient why? Saccharin doesn't effect blood sugar level
7. Insulin production and its action in the human body are responsible for the level of diabetes. This compound belongs to which category? Hormones
8. What is the monomer of polythene? Ethylene
9. What is the chemical name of natural rubber? cis-poly isoprene
10. What is monomer of Teflon? Tetra flora ~~carbon~~ ethene

Long Answer Questions 4X5=20

1) Explain natural dyes and synthetic dyes with examples.
2) How can you prepare azo dye in lab?
3) How do you prepare simple soap? Explain.
4) Prepare a pure sample of Paracetomol.

Long Answer questions

1) Explain natural dyes and synthetic dyes with examples.

A) Natural dyes

Natural dyes are dyes or colorants derived from plants, invertebrates or minerals. The majority of natural dyes are vegetable dyes from plant sources - roots, berries, bark, leaves and wood - and other biological sources like fungi.

Examples: ① Turmeric ② Indigo ③ Hina etc...

Synthetic dyes

A colorant / Synthetic dye is any substance that changes the spectral transmittance (or) reflectance of the material. These are usually prepared in the laboratory i.e which are synthetically manufactured using synthetic chemicals that contrast the Natural dyes.

Examples: ① Orange G ② Eosin Y ③ Basic fuchsin etc....

2) How can you prepare azo dye in lab?

Most of azo dyes are prepared by azo coupling, which entails an Electrophilic substitution reaction of an aryl diazonium cation with another compound, the coupling partner. classically coupling partners are other aromatic compounds with Electron-donating groups.

$$ArN_2^+ + Ar'H \longrightarrow ArN=NAr' + H^+$$

In practice, acetoacetic amide are widely used as coupling partners

$ArN_2^+ + Ar'NHC(O)CH_2C(O)Me \rightarrow ArN=NCH(C(O)Me)(C(O)NHAr') + H^+$

Azodyes are also prepared by the condensation of nitroaromatics with anilines followed by reduction of the resulting azoxy intermediate.

$$ArNO_2 + Ar'NH_2 \longrightarrow ArN(O)=NAr' + H_2O$$

$$ArN(O)=NAr' + C_6H_{12}O_6 \rightarrow ArN=NAr' + C_6H_{10}O_6 + H_2O$$

for textile dying, a typical nitro coupling partner would be disodium 4,4'-dinitrostibene-2,2'-disulfonate. Typical aniline partners are shown below. Since anilines are prepared from nitro compounds, some azodyes are produced by partial reduction of aromatic nitro compounds.

Many azo dyes are produced by reactions from pre-existing azo compounds. Typical reactions include metal complexation and acylation.

3) How do you prepare simple soap? Explain.

Process for making a simple soap

=> Mix water and lye (ware), set aside to cool

=> Melt oils, set aside to cool [Melt i.e boil more]

=> Blend lyewater and oil to form a soap "batter"

=> pour into mold and let harden for a day

=> Turn out of mold, cut into bars and let cure for 2-3 weeks

#Lye => Metal hydroxide traditionally obtained by leaching wood ashes, or strong alkali which is highly soluble in water producing caustic basic solutions.

Government Degree College, Luxettipet

Dist. Mancherial

(Email: gdclxpt@gmail.com)

Date: 12-03-2020

Certificate

This is to certify that ..... S.LAXMI ..... Studying

MPC.S. I Year at this college completed the certificate course on " Chemistry in Daily life"Offered by Department of Chemistry for the academic year 2019-20 from 6th February to 12th March with ..... 'A' ..... grade.

(T Manjula)

COORDINATOR

(Dr Jai Kishan Ojha)

Principal

Govt. Degree College,
Luxettipet-504 215

PRINCIPAL

GOVERNMENT DEGREE COLLEGE, LUXETTIPET

FEEDBACK REPORT

DATE: 12/03/2020

Name of the student	S. LAXMI
Course and Academic Year	M.P.Cs. Ist Year
Name of the programme	CHEMISTRY IN DAILY LIFE
Questionnaire for the programme	
1. Are you satisfied by the programme?	Yes
2. What did you learn from the programme?	Applications of chemistry in real life
3. Is it useful to improve your skills?	Yes.
4. Can you apply this in generating self employment?	Yes.
5. Any suggestions by you regarding the programme?	Some more classes requires

PROGRAMME CO-ORDINATOR

PRINCIPAL

Principal
Govt. Degree College,
Luxettipet-504 215

GOVERNMENT DEGREE COLLEGE, LUXETTIPET

FEEDBACK REPORT

DATE: 12.03.2020

Name of the student	P. Manasa
Course and Academic Year	M.P.Cs IST year
Name of the programme	Chemistry in Daily life
Questionnaire for the programme	
1. Are you satisfied by the programme?	yes
2. What did you learn from the programme?	Applications of Chemistry.
3. Is it useful to improve your skills?	yes
4. Can you apply this in generating self employment?	yes
5. Any suggestions by you regarding the programme?	—

PROGRAMME CO-ORDINATOR

PRINCIPAL

Principal
Govt. Degree College,
Luxettipet-504 215

CHEMISTRY IN DAILY LIFE

COURSE SUMMARY

COURSE GENERAL OBJECTIVE

Introduce chemical concepts using everyday activities as examples to fulfil the following goals.

- Increase scientific literacy in general population of students.
- Create an environment that illustrates the importance of chemistry by evaluating current issues associated to chemistry.
- Identify and describe physical phenomenon in everyday products, activities and events.
- Students will have a firm foundation in the fundamentals and application of current chemical and scientific theories in general chemistry.
- Analysis of daily using compounds like toothpaste, soap, dettol, sanitizers and their applications.
- Lab safety rules, handling chemicals and glass ware safety.
- Simple reactions and chemical composition.

Principal
Govt. Degree College,
Luxettipet-504 215