Dr. Ch. V. J. Sinivas. 2022-23

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wie of	Joining in Degree College/Date	05/12/2007			Producermine d	the second s	Key Indicator Wise	KIWWGP at	
S.Nn	Key Indicator	List of films' documents to be kept ready as a groof of Key holicator	Jafernation in apport of the key indicator	Kay Aspect Scares	Weightage (W) for Key Indicator	Grade Paints	Walghred Grude Palats (KJWWGP) = KIGP X WI	per Actentic	Guidelines
		14	CURRICILAR ASPECTS		1			1	
	Curricular Planing and Implementation (for Automotions Colleges - Efforts for Curriculum	Preparation and Implementation of 1. Annual Academic Curriculum Pian 2 Course Objectives & Ottomper	Course wise Sen was Records for the Academic Year	2×5~ 10	m			-	 All Geckey indicates -3 Grade points/A 2)Any four key indicates -2 Grade points/B 3)Any two key indicates -1 Grade points/C
1	Dealog and Development to be considered)	3. Teaching Diary 4. Lesson Plats	Contse wise Sen wise Reneds for the Arademic Year	2x5-10		12	60		4)No Indicator=0,D
	1 2 M (1 2 M)	5. Active Participation in BOS	Invitation Letter & Amendance	10		B	60		
		 Additional inputs related to Curriculum of the menus braight 	a)Course wise/Sem wise additioned inputs Reports	10	20				 All three key indimines -3 Grade prints/8 2(Acy two key indicators -2 Grade points/9
2	Carciculum Flexibility/Enrichment	2 Vatue acidat courses offered & completed a)Certificate b)Diplema c)Any Quine courses like MOOCs	biReport on Certificate/Diploms cjAny Online courses Hsc MOOC4	2x5=10		в	40		3),Azy one key indicesor =1. Grade pour/C 4)No Indicesor=0/D
3	Feeillach system	Peedbook on Camicalum by Students a) Collectual b) Analyzal c) Action takes	Course wiseSom wise a Reports of Feedback bpAnalysis Reports c)Action taken Report	10	10	A	30		1)All three key incicators =1 Grade points/A 2)Arty two key indicators =2 Grade points/B 3)Arty one key indicator =1 Grade points/C 4)No Indicator=WD
		II-TEACH	NG, LEARNING & EVALUATION		- No				
4	Cataring to Statent Discrity	 Report on grouping of students into Slow, Moderate and Advanced learners Course wras activities designed for Slow, Moderate and Advanced learners 	1 Crame wise/Sam wise Reports with lists of students (Slow, Mederate and Advanced learners) 2 Course wise/Sem wise Activities designed for Slow, Moderate and Advanced learners	16	20	A	20		1)Ali three key indicators =3 Grade points/A 2)Any two key indicators =2 Chade points/B 3)Any one key indicator =1 Grade point/C
		 Report on Course wise Bridge Onerses conflucted Report on Orarse wise Retuedial coaching conflucted 	1.Course wise/Sero wise Reports on Unitige Course conducted 2.Course wise/Sero wise Report on Retuchal constring conducted	2x5=10		A	20		speny me key analan - Conser point C spho Indianar-D/D

S.No	Key Indicane	List of Way documents in by kept ready on a groot of Key Indicator	Information in support of the key inflortor	Kej Japen Seveni	Predatormina d Weighinge (963) for Key fodienter	Grade Points	Key Indicator Whe Weighted Grade Paints (KEWWGP) + KEGP X WI	KEWWGP sa per Acdemie Advisor's grading	Galdelines
Ŧ	Teaching-Learning Process	 Report on implementation of ICT in teaching and learning (Course wise) Report on implementation of ICT in teaching and learning (Course wise) Report on implementation of Computer/Internet assisted learning (Course wise) Report on the Use of LMS tools (Course wise) Counsulation for the development of LMS in the concerned solution Report on improvative reducented Tools and 	Course wise/ Sam wise Reports	50	50	B	100		[]AI. five key indicators =2 Grade points/A 20Any three key indicators =2 Grade points/R 3)Any two key indicator =1 Grade point/C 4) Balese two=0/D
\$	Teacher Profile and Quality	Report on Seminane/Conferences' Workshops' Guest Lectures organized Report on Participation in Seminary Conferences/Workshops' Guest Lectures' Invited tales Avands and recognition Participation in Stort term' Orientation /Refresher contest/E0% S. F. Content Development (MOOCS (Massive Open Culture Courses) Additional Qualifications acquired during the last two years	Reports and Cartificates	30	30	A	90		1)Any five key indicators =3 Ginde points/A 3)Any tirus key indicators =2 Ginde points/B 3)Any two key indicator =1 Ginde points/C 4) Below two=0/D
		1. Report on Formative Evaluation (CIE)	Department was reports regarding	-10					1)All four key indicator Metrics -3 Grade
	- 105 - 107	 Assignments-Ontical, Innovative, less heak and Internet based 	 Mid evans, Seminar Reports, Assignment books, Projects and any other tools of Internal 	10	l var				points/A 2) Matrice 1, 2, 4 =1 Grade points/B 3)Matrice 1, 2,3 =1 Grade point/C
13	Evaluation Process and Balanna	3. Javolvement in Summative evolution	Assessment 2 Departmental Internal Marks Register for	5	- *				() Below two=0/D
		4. Maustaining Marke Register & Rendt Analysis register.	CIA venified by the Principal	્ય		A	90		
8	Student Performance and Learning	 Announcement and Attainment of Course Outcomes Report on Student seminary Student domonstrations (Course wise) Report on activities Eke Quile/Group discussion/Poster presentation (Course wise) Report on Field intpe (Course wise) Report on Student Study projects (Course wise) 	Cause wise Reports	316~30	10	A	90		1)All five key indicators =3 Grade points/A 2)First Ki Metric and any three other =2 Grade points/B 3)First Ki Metric and any two other =1 Grade point/C 4) Below two=0/D

5.No	Rey factore	List of flice: documents to be kept yearly as a proof of licey findlestor	Information in support of the key indicator	Бау Азрел Бууга	Predetormine d Weightage (Wi) for Key Indicator	Grade Pointa	Key Indicator Wita Weighted Grade Paints (KIWWGP) = KIGP X Wi	KIWWGP an per Accente Adviner's grading	Guidelines
-		III-RESEARCH	LINNOVATIONS AND EXTENSION	N					
¢.	Funding obtained for Research (Goyt, Non-Gavernmental Bodies)	1. Minar Research Projects 2 Magor Research Projects 3 Consultancy Projects	Latter of intimation and award letters (Fix Control Year only Ether Ougoing OR Completed)	5 10 5	20	D	0		L)All three key indicators =3 Gaada paints/A 2)Any two key indicators =2 Grade points/3 3)Any one hey indicator =1 Grade point/C
19	Research Publications and Associa	Papers Published in Journals / Chapters published is edited volumes Z. Books published as single author S. Books published as Co-Author 4. Papers Chapters published as Co-Author (Note: A maximum of 3 published as Co-Author (Note: A maximum of 3 published as Scopus/Web of Science/CF or UGC - CARIS Listed journals/Any book with JSUN shall be equivieral)		10 15 10 5	50				 I)Any durer key indicators +3 (Frack points) 2)Any two key indicators =2 Grade points/? 3)Any one key indicator =1 Grade point/? 4) No Indicator=0/D
		5.Research Guideszip 6.Awapds in recognition of research work		10 10		С	10		
		Academic Extension activities through DRC? (acality Cherosch (Carriculum' Skill-Domen relaxed)	Reports in the NAAC formula	10		С	(0	2) Any two key indicators -2. Thatle po	 H. Brackey mitranes =) Grade points/A 2)Any two key indicates =2. Grade points/9 3)Any one key ladicator =1. Grade point/C
11	Extension Activities	Involvement in activities relaxed to community service a. Sensitiving the students about the value of Community Service b. Organising the activity (A maximum of 5 Programmes resulting in Community Service like ODF/Sweahh Blazat/UBA 600)	Reports in the NAAC former	5-5	20	В	20		4)No Indiantor=0/D
12	Functional MoUs /Collaborations with Govt and Nan Governmental Organisations	 Defaberation with University/Industry/NGO/Any other Agency Consubaccy offered Amount generated through Consultancy. 	MoUs - 5 points Consultancy offered -10 Account generated through Consultancy - 5 points	20	20	с	20		DAil tano key indicators =3 Ocada points A 2)Any two key indicators =2 Orada points (R 2)Any one key indicator =1 Orada points (C 4)No indicator =9 (D
-	1	TV - USE OF INFRA	STRUCTURE & LEARNING RESOURCE	5	West Re-	31			
13	Physical facilities	Infrastruatural facilities in the Department/Colleges a. Use of Digital Classrooms b. Use of Virtual Classroom c. Use of Labs d'Use of Library c. Nilst usage. f. Maintenance of Departmental Library	(ag heeks related to mage	20	20	A	60		1) Any Four key indicators -3 Gaale points/2 2) Any three key indicators =3 Oracle points/ 3) Any two key indicators =1 Grade points/ 4) Balow two Indicators =0/D

5.Ne	Key Indicator	List of files' documents to be kept ready as a proof of Key Judicator	Information is support of the low indicator	Koy Aquer Starm	Predicteratine d Weightage (Wi) for Key Indicator	Grade Paints	Key Indicator Wits Weighted Grade Points (RIWWCP) - KIGP S Wi	KIWWGP as per Acakasie Adrison's grading	Guidelines
-	ale and a second se	V- ROLE IN STU	DENT SUPPORT AND PROGRESSION	0		10-1-12			
14	Saudeer Support	Counseling of stalents as Mentee' Class teacher, a Staters Profile Collection b. Searceser wise updotion and maintenestice. Any other Study Material Minidance a)Academic guidance for the advanced learner (offering suggestions reference books) b)Handholting the slow learners (offering study material- question backs) Guinhing/Mentucing Statents for CSP-Intereship Grganizing/Participation in Parint Teacher Moorings	Reports in the NAAC format	20 10 10 19	30	A	150		()All Four key indicators >3 Grade points/A 2)Any Three key indicators =2 Grade points/B 3)Any Two key indicator =1 Grade point/C 4 Below two=0/D
15	Sudeet Prograssion	Report on Programme/Course wise students' progression to aiHigher Education billimployment childrepreneurship	Reports in the NAAC format	10 10 10	30	B	60		1]All these key indicators =3 Grade points/A 2]Any two key indicators =2 Grade points/3 3]Any one key indicator =1 Grada points/1 4]No Indicator=0/2
			INSTITUTIONAL GOVERNANCE						
16	Participation in Institutional Governmente and Londenship	 a)Contribution on Departmental Vision & Mission and Departmental Action Plan b)Participation in different institutional committees and properation of constructive reports c)Participation in different institutional activities that focus on walas based education d)Contribution to IQAC/quality initiatives 	Reports to the NAAC formet	4210	40	A	120		TAL Four key indicators =3 Grade points/A 3)Any Three key indicators =2 Grade points/J 3)Any Two key indicator =1 Grade point/C 4)Below two :0:D
			UL-BEST PRACTICES	1	14	10			
:7	Bux Practices	Identification and Contribution to c)The Departmental Best practices by maintenant Best practices	Reports in the NAAC format	20	20	A	60		UAII Two key indicators =5 Grade points/A 2)Any one key indicator =2 Grade points/B 3)No indicator=0/D
		Total Grade points			500		1050		

Name & Signamus of the Principal

PN PRINCIPAL S X.R. Gramment (Seg H Crillege (Notice)) RAJAMAN C. NCP (ANAPSAM, East Gode van Lint, Hundma Pradeeh



Name & Signatures of the Academic advisors

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3)

S.K.R.COLLEGE FOR WOMEN Accredited at B+ Level by NAAC RAJAHMUNDRY- East Godavari Dist. (A.P.)

PERFORMANCE APPRAISAL REPORT FOR SELF APPRAISAL OF TEACHERS UPTO 2015

A .General Information:

a) Name	: CH.V.V.SRINIVAS
b) Date of Birth	:.15-04-1962
c) Residential Address	: 29-27-20, LAKSHMI VARAPU PETA, RAJAHMUNDRY- 533 104. Mobile: 9441073416 Email: chvvsrinivas@gmail.com
d) Designation	: LECTURER
e) Department	: CHEMISTRY
f) Area of Specialization	: ORGANIC CHEMISTRY
g) Date of Appointment	: 01-08-1985
i) In the Institution	: 05-12-2007
ii) In the Present post	: 05-12-2007
h). Employee I.D.	: 0380076

i) Honors Conferred

B. Academic Qualification

Exam. Passed	Board / University	Subject	Year	Division /Grade Merit etc.,
	BOARD OF			
High School	SECONDARY		1977	II
	EDUCATION			
Higher Secondary	BOARD OF			
or	INTERMEDIATE	M.P.C	1979	III
Pre-Degree	EDUCATION			
	ANDHRA			
Bachelor's Degree	UNIVERSITY.	C.M.P.	1983	II
	VISAKHAPATNAM			
	ANDHRA	ORGANIC		
Master's Degree	UNIVERSITY.	CHEMISTRY	1985	Ι
	VISAKHAPATNAM	CHEWISTKT		
Research Degree(s)	ANDHRA UNIVERSITY. VISAKHAPATNAM	ENGINEERING CHEMISTRY	2020	

Other Diploma/		
Certificates etc.,		

C) Pasaarah Evneriance & Training

C) Research Ex	C) Research Experience & Training						
Research Stage	Title of Work / Theses	University where the work was carried out					
M.Phil or equivalent							
Ph.D.	SYNTHESIS, CHARACTERISATION AND CATALYTIC STUDIES OF GRAPHENE OXIDE COPPER FERRITE NANO COMPOSITES	ANDHRA UNIVERSITY COLLEGE OF ENGINEERING, VISAKHAPATNAM					
Post-Doctoral							
Publications Research Guidance (give name of students guided							
successfully) Training (Please Specify)							

D) Research Projects carried out.

Title of the Project	Name of the funding Agency	Duration	Remarks

E) Details regarding refresher courses/ orientation courses, Seminars, Conferences, Symposia, Workshops etc., attended

S.No	Name of the Seminar / Conference / Symposia / Workshop etc.,	Name of the Sponsoring Agency	Place and Date
1	National work shop on Applicaations of Radio Isotopes	Department of Chemistry,	S.K.R.College(W), Rajahmundry 6 th Dec. 2008
2	National level seminar on Medicinal and aromatic plants and value added products	U.G.C.	S.K.R.College(W), Rajahmundry 9 th &10 th Jan. 2009

3	National seminar on alternate energy sources (Traditional/Local/Modern initiatives)	U.G.C.	S.K.B.R.College, Amalapuram 4 th & 5 th Feb. 2009
4	Work shop on Chromatography and Instrumental Techniques	Department of Chemistry	S.K.R.College(W), Rajahmundry 29 th Nov. 2009
5	Internship Science Camp – Inspire	DST	S.K.R.College(W), Rajahmundry 7 th – 11 th June 2011
6	State level Work shop on Applications of Radio Isotopes	U.G.C.	S.K.R.College(W), Rajahmundry 10 th Nov. 2011
7	International Conference on Effect of Effluents on Environment (EEEE-2014)	U.G.C.	Andhra University, Waltair 30 th June&1 st July 2014
8	National Work shop on Radio Chemistry and Applications of Radio Isotopes	BRNS – DAE	Govt. College (A), Rajahmundry 24 th – 29 th Nov. 2014
9	Inter Disciplinary Refresher Course in Environmental Sciences	U.G.CH.R.D.C.	Andhra University, Waltair $1^{st} - 21^{st}$ June 2015
10.	National Conference on Advanced Molecular Spectroscopic Techniques (AMST-2015)	U.G.C.	Govt. College (A), Rajahmundry 21 st – 22 nd Aug 2015
11	National Seminar on Current Research Trends and Development in Organic Chemistry (CRTADIOS-2015)	APSCHE	Adikavi Nannayya University Campus, Velugubonda 5 th – 6 th Oct. 2015

F) Teaching Experience:

Courses Taught	Name of the University/ College/ Institution	Duration
U.G	S.K.R.College for Women, Rajahmundry	Dec. 2007 to till date
P. G.		
M.Phil		
Any Other		

Total Teaching Experience : 30 Years

a) Under Graduate : 08 Years

:

b) Post Graduate

G) Innovations/ Contributions in Teaching:

:

a) Designer Curriculum

•

b) Teaching Methods	: Power Point Presentations – Internet based Teachings- Crystal Models
c) Laboratory Experiments	:
d) Evaluations Methods	: Assaignments – Unit Tests
e) Preparation of Resource Material Including Books, Reading Materials. Laboratory manuals	: Chapter wise Reading materials, Lab Manuals for : I ^{st,} II nd & III rd B.Sc.
f) Remedial Teaching/ Student	: Remedial Teaching for academically slow learners
Counseling (Academic)	: and Counseling for the Incharge Class Pupil
g) Any Other H) Extension work/ Community	:
a) Please give a short account of	
Your contribution to	
i) Community Work such as	:
values of National Integration	
secularism, democracy, socialism,	
humanism, peace, scientific temper,	
flood or drought relief, small family	
norms	
ii) National Literacy Mission	
b) Positions held / Leadership role	: Convener Social Service League
played in organizations linked	
with extension work and National	

service scheme (NSS) or NCC or any other activity.

I. Participation in Corporate Life

Please give a short account of your Contribution to

 a) College / University / Institution
 :,Member Students Union, Science Association and College Admission committee
 b) Co- curricular Activities
 :
 c) Enrichment of Campus life
 :
 d) Students welfare and Discipline
 :
 Membership / Participation in Bodies / Committees on Education and National Development
 f) Professional organization of Teachers
 J) a) Membership of Professional

b) Editorship of Journals

K) Assessment

a) Steps taken by you for the evaluation of the course programme taught:

L) General Data

State brief assessment of your performance indicating

(a) Achievements,

Paper Revaluation & Evaluation

- (b) Difficulties faced and
- (c) Suggestions for improvement

Br

(Signature of the Teacher)

Commissionerate of Collegiate Education, Andhra Pradesh. PROFORMA FOR TEACHING PLAN

Name of the Department	chamistry	and marked with	100
Name of the Lecturer	Dr. ch. v.v.	sninikes	1999 - St.
Course / Group	B.Sc., CB20	G)	1.10
Paper	IA.		
Name of the Topic	Nitrohyphocart	ons	
Hours required		- 1	- visi a
Learning Objectives			
Previous Knowledge to be reminded			
Topic Synopsis Nom	on clatting and ch	amification of	nitu
hydrocarton			100
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Commissionerate of Collegiate Education, Andhra Pradesh. PROFORMA FOR TEACHING PLAN Name of the Department chempin Dr. ch. V.V. Sninity Name of the Lecturer B.SL. - CBZ(E), MP(G) Course / Group III - Sens - IT Paper Name of the Topic Alchin & phent Hours required prepri- propetting a chill. chashificution of along \$ Dids - pinned - pinklen recorder. Learning Objectives phends - press, propti- acidic maiture - factory affector- Nound reaction Previous Knowledge to be reminded Topic Synopsis compands having - of for in alkances are called aterity R-H - R-OH. Nonnetatan_ melling aling monohydic aling CH3-OHwith alchubs Di hydre alch CH3-CH20H Improved aluen The hyplic ality CH3 ~ CH 04 poly hydric alushi CH1 - lawifictor: 1°-, 2°- and 2°- detak. of the state of the state metter by malehik. propetil - Hypenorgen boandres. chaniel properties; Estatectus The shift pairty 0 Hason Ro-C-R balls something mechaning C-OCCHAT Has CHILE-OH HO-CENS- CHOoppenant oridetic: 2- alc. reacts with Alumini Inproposid in preme of actione to grin Kalting. CH3 (CH3) CHO AL R ----that hig solve R CHOH + CH 2=0 + CIPOH R1 Grideter both Kny Og and acidic dictormalis. Bridation 21. 2. g' alectory alto Kny a 4 and Krenser to fin addelyste, beton and alken reportional. pinned - pineloling ne angelt- mechani icity icity dil Haloy CHy 104 011 BC-C-CHy 104 011 BC-C-CHy William Hereit

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Signature of the Lecturer

Signature of the Department I/C

TEACHING PLAN (SYNOPSIS)

Month :	Subject :
TOPIC :	Paper :
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	
Topic Synopsis	
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Models used ds used References cited Student Activity planned after the teaching Activity planned outside classes Any other Daniel cell: misoy cu soy pourportin Reversible and Irrespersible cells: Galvanic cellis a reverible cell. Zm | Znsoy (aim) || cu soy (e.1)) | cu Types of neversitle Electrody :. @ Gras- metal in- titgoe 3. Redox -destrily . single electrode polential Reference electivides. Hydrogen reletirate (gas electivate Electiv chanical series: Normet-contin : [===== (205)] he= [cut2 (an)] Eau = R. 303 RT LyKe Gibbs Free Energy E Call = 0.0591 by Ke DG=-2BO3RT Lik 1. SOLAC PA Principal Incharge Lecturer

Name of the Lecturer :	he Lectu	urer :	170					and the second second second second		Month & Year :	July 20	2.5
S. Data	2.4	Day	Class	Period / Time	Medium	Theory / Practical	Topic Coverad	Methodology	No. of Stude- nts attended	Teaching Aids Used	Student Activity Conducted	Remarks
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TEACHING DIARY FOR THE YEAR 202

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ANNUAL CURRICULAR PLAN

ANNUAL CURRICULAR PLAN (CHEMISTRY DEPARTMENT) 2022-'23 (Odd sem)

S.K.R.GOVERNMENT DEGREE COLLEGE FOR WOMEN, RAJAHMUNDRY

CLASS & GROUP: CBZ(T) , CBZ & MPC (E), I, II, III B.Sc.,

NAME OF THE LECTURERS:

1. Dr. M. Sunitha, 2. Dr.Ch.V.V.Srinivas, 3. Smt. V.B.T.Sundari, 4. Smt.N.Swathi, 5. Smt. P.N.L.Prasanna

-		-		Additional	C	urricular A	ctivity		Co-C	Curricula	r Activity		
MONTH	PAPER	Hours		Input/Value addition to be provided/taug ht		Hours allotted	Whether Conduct ed	if not alternat e date	Activity to be conducted	Hours allot ed	Whether Conduct ed	if not alternate date	Remarks
DV.	1	4	Liquid state		Assignment	1				-	-		1
	ш	12	Chemistry of halogenated hydrocarbons, Alcohols & phenols		Assignment	1	Yes		-	6(6:			
	VI B	7	Quantitative Analysis-1	Ground Water Analysis		1	Yes	1	Visited ground water department Dowlaiswaram	3+3	yes		
-	VII B	7	Chromatography		Assignment		Yes			1	1	30	ŝ
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	111	19	Carbonyl compounds		Assignment	1	Yes			-		1000	
	VI B	13	Quantitative Analysis-2	1477 B	Student Seminar	1	Yes	120		1			
	VI		TLC, Paper Chromatography			1	Yes		an and all and all and all and all and all all and all all and all all all all all all all all all al			56	で、
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	Department of Ct Programme &	emistry 2022-2023 Course outcomes
Programme	Course	Programme outcomes
		 Understand the environment functions and how it is in balance by human activities.
		 Acquire chemical knowledge to ensure sustainable use of the worlds resources and ecosystems services.
BSC	MPC& CBZ	 Engage in simple and advanced analytical tools used to measure the different types of pollution. Knowledge about the energy crisis and different aspects of sustainability
Semester	Name of the course	5. Sain the knowledne of chemistry through theory and tracticals Course out comes
Genteerer	Hume of the obdite	Understand the basic concepts of p-block elements
Sem-1	Internet and Divelocit Disordetry	Explain the difference between solid, liquid and gases in terms of intermolecular interactions.
Setter	Inorganic and Physical Chemistry	Understand and explain the differential behaviour of organic compounds based on fundamental
		Concepts learnt. Formulate the mechanism of organic reactions by
		recalling and correlating the fundamental
		 properties of the reactants involved Learn and identify many organic reaction mechanism including Free Racical Substitution,
Care 0	Opposite & Connect Objective	Electrophonic Addition and Electrophonic Aromatic Substitution. Correlateanddescribethestereochemicalpropertiesof organiccompoundsa
Sem-2	Organic & General Chemistry	d reactions. Understand preparation, properties and reactions of haloalkanes,
		haloarenes and oxygen
	A construction of the second second	 Containing functional groups. Use the synthetic chemistry learnt in this course to do functional group transformations.
Sem-3	Organic chemistry & Spectroscopy	 To propose plausible mechanisms for any relevant reaction
		To learn about the laws of absorption of light energy by molecules and subsequent
		photochemical reactions
Sem-4	Inorganic, Organic and Phys	To understand the concept of quantum efficiency and mechanisms of aphotochemical reactions
Course	5 Inorganic & Physical (Understand concepts of boundary conditions and quantization, probability distribution, most
0.000	a magano arrigonar	Identify the importance of solvent extraction and ion exchange
		method Acquire knowledge on the basic principles of volumetric analysis and
		nravimatric analysie
		Demonstrate the usage of common laboratory apparatus used in ouantitative analysis.
Sem-5	Analytical Methods in Chemistry-1	Understand the theories of different types of titrations. Gain knowledge on different types of errors and their minimization
		Identify the importance of chromatography in the separation and identification of compounds in a mixture
		Acquire a critical knowledge on various chromatographic techniques
		Demonstrate skills related to analysis of water using different techniques.
		Understand the principles of spectro chemistry in the determination of metal ions.
	Applytical Methods in Chemister 2	Comprehend the applications of atomic spectroscopy
		The second

UNIT -I

CHROMATOGRAPHY - INTRODUCTION AND CLASSIFICATION

1. What is Chromatography? How is it classified?

Chromatography is a technique to seperate the compounds present in the mixture. It is based on the adsorption principal. This technique involves

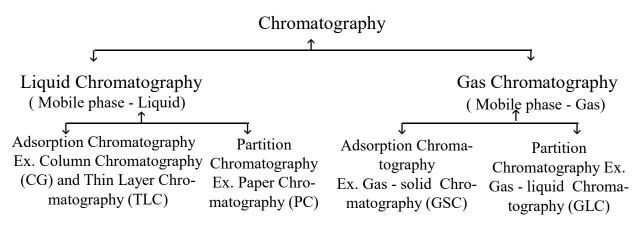
(1). Adsorption of compounds on the stationary phase (2). Desorption of compounds from the stationary phase by the mobile phase.

It is of two types

(a). Adsorption Chromatography;- In this technique components of the mixture are seperated basing on the adsorption phenomenon.

(b). Partition Chromatography;- In this technique components of the mixture are seperated basing on the distribution law.

Classification:- Basing on the state of the mobile phase used chromatographic methods are classified as follows.



2. How does the compounds in the mixture identified in paper chromatography technique?

Paper chromatography is one of the separating techniques based on partitial coefficient. It is a liquid chromatography technique in which stationary phase and mobile phase are liquids. In this technique water present in the whatmann paper is used as stationary phase. Mixer of water and polar organic solvent is used as mobile phase.

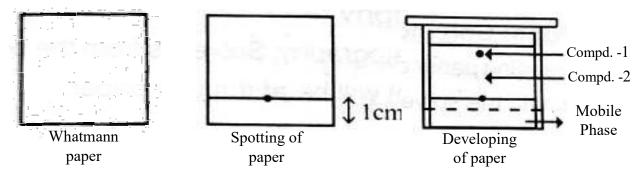
PRINCIPLE:- It is based on the distribution law. It is based on the principle that compounds with different distribution coefficients between the stationary phase and mobile phase will move different speeds on the stationary phase along with mobile phase. Hence, they can be easily separated.

Experimental Procedure:-

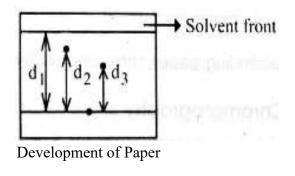
Stationary Phase:- Water present in the whatmann paper

Mobile Phase:- Mixture of polar organic solvents and water.

In this technique the sample containing compounds is spotted on the filter paper just above 1 cm. from the bottom. The paper is kept in the chromatography chamber containing organic solvent. The solvent rises by the capillary action and moves upwards on the paper. It pushes the compounds in the sample with different speeds while moving upwards. As a result these compounds are adsorbed at different places on the paper as bright spots.



The unknown compounds in the sample are identified by comparing teir Rf values with The Rf values of standard compounds.



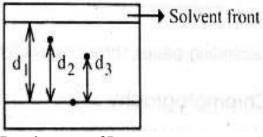
Rf value of a compound = $\frac{\text{Distance travelled by the compound on the paper}}{\text{Distance travelled by the solvent front on paper}}$

Uses:-

It is used (1). for the seperation of compounds of the sample which have different distributions between the stationary phase and mobile phase. (2). for knowing the unknown compounds in a mixture.

3. What is Rf factor? What is its significance?

It is also known as retaradation factor. It is the ratif between the distance travelled by the compound on the TLC plate and the distance travelled by the solvent front on the TLC plate



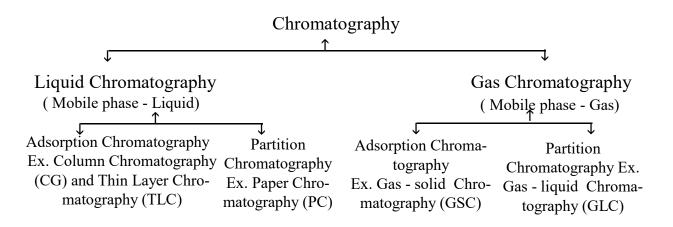
Development of Paper

Rf value of a compound = $\frac{\text{Distance travelled by the compound on the paper}}{\text{Distance travelled by the solvent front on paper}}$

It is an important physical property of a compound. It is useful to identify unknown compounds by compairing it's Rf factor withe the Rf factor of the standard compounds.

4. Write about mobile phases in chromatography?

A phase that moves is called mobile phase, it may be a liquid or gas. Classification based on the mobile phase.



5. What is eluotropic series?

The arrangement of solvents on the increasing order of polatiy is known as the "Eluotropic series".

UNIT -II

TLC AND PAPER CHROMATOGRAPHY

1. How does the compounds in the organic mixture seperated in the thin layer chromatography (TLC) technique?

Thin layer chromatography is one of the seperating techniques based on adsorption phenomenon. It is a liquid chromatography technique in which stationary phase is a solid and the mobile phase is a liquid. In this technique Silica Gel -G of Alumina -G is used as stationary phase. n-hexane or Benzene of Chloroform etc., is used as mobile phase.

PRINCIPLE:- It is based on the adsorption phenomenon. It is based on the principle that different compounds are adsorbed at different places on the stationary phaseof the TLC plate with different strenghts. These are desorbed by the mobile phase basing on their polarity.

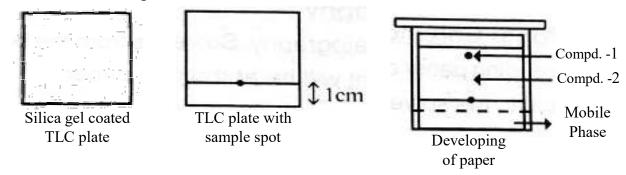
Experimental Procedure:-

Stationary Phase:- Silica gel-g, Alumina-G, Cellulose, etc.,

Mobile Phase:- n-hexane, Benzene, Chloroform, Methyl hexane etc.,

In this technique a thin layer of silica gel or alumina gel is coated on the glass plate. A dilute solution of the sample in chloroform or methyl alcohol or acetone is applied as a spot on the TLC plate just 1 cm above from the end of the plate. The spotted TLC plate is developed by keeping vertically in the TLC chamber containing few ml. of organic solvent such as chloroform or methyl alcohol or acetone. It must be slightly below the level of the spot on the TLC plate.

The solvent moves up the plate through the stationary phase by the capillary action. The solvent pushes the compounds in the sample moves up with the solvent with different speeds and get adsorbed at different places basing on their polarity as bright spots. After the solvent front is reached, the TLC plate is taken out of the chamber and marking is done on the solvent front with a pen. Then the plate is dried until solvent is evapourated.



The no. of spotss produced on the TLC plate give no. of compounds in the mixture. The compounds in the sample are known by comparing the Rf factor of the spots with the Rf factor of the known compounds. The spots on the plates are scrapped and leached by using organic solvents for the seperation of compounds. **USES:**- It is used (i). to determine the no. of compounds in a mixture. (ii). to identify an unknown compound in the mixture (iii). to seperate the compounds in the mixture.

2. What are ascending and descending paper chromatography?

Ascending Paper Chromatography:-

Nitro Alkanes		22
	<u>Nitro Alkan</u>	es
1. What are Nit	ro Alkanes? How ar	e they classified?
Compoun	ds with general form	ıla R-NO2 are called
nitro alkanes.		
Ex. CH3-NO2	CH3-CH2-NO2	СН3- СН - СН3
		NO ₂
Nitro Methane	Nitro Ethane	2-nitro Propane
They are o	classified into primary	y, secondary and tertiary
nitro alkanes.		
H	Н	R
H I R - C - NO2	H R - C B	R - C - NO2
H	I R	R - C R - C R
primary	secondary	tertiary nitro alkanes

2. Explain tautomerism exhibited by nitro alkanes.

Isomers formed by transfer of protons are called tautomers. Like keto compounds, primary and secondary nitro alkanes undergo tautomerism. They form nitroform and aci forms. The aci forms of primary and secondary nitro alkanes form salts with strong bases. Tertiary nitro alkanes does not show tautomerism.

4C-13

 $R - \frac{H}{H} - \frac{H}{N} \stackrel{+}{\bigcirc} \longleftrightarrow \qquad R - \frac{H}{C} = \stackrel{+}{N} \stackrel{O}{\bigcirc} H$ Nitro form Aci form

23 3. Write any three methods of preparations of nitro alkanes. a) By direct nitration of alkanes $CH_3 - H + OH - NO_2 \xrightarrow{\Delta} CH_3 - NO_2 + H_2O$ b) By the reaction between Alkyl halide and silver nitrite $CH_3I + AgNO_2 \longrightarrow CH_3NO_2 + AgI$ c) By the reaction between chloroacetic acid and sodium nitrite $Cl-CH_2-COOH + NaNO_2 \longrightarrow NaCl + NO_2 - CH_2 - COOH$ $NO_2 - CH_2 - COOH \xrightarrow{\Delta} CH_3 - NO_2$ 4. Explain the following reactions? (b). Michael condensation reaction (a). Halogenation (c). Mannich reaction (d).Reaction with nitrous acid (e). Nef reaction (a). Halogenation: 1^0 and 2^0 nitroalkanes undergoes α - halogenation $3Cl_2 + 3NaOH + CH_3 - NO_2 \longrightarrow CCl_3 - NO_2 + 3NaCl + 3H_2O$ Chloropicrin (insecticide)

Nitro Alkanes

b). Michael condensation reaction :- Nitro alkanes undergo addition reaction with α,β -unsaturated carbonyl compounds, α,β -unsaturated nitro compounds, α,β -unsaturated esters. This reaction is called Michael condensation reaction.

$$R - CH_2 - N = CH_2 - CH_2 -$$

(c).Mannich reaction:-The condensation reaction between Nitroalkanes, formaldehyde and salts of Ammonia or 1^0 amine or 2^0 amine is known as mannich reaction

 $R - CH_2NO_2 + HCHO + NH \longrightarrow R - CH - CH_2 - N + H_2O$ $CH_3 \longrightarrow R - CH - CH_2 - N + H_2O$ $CH_3 \longrightarrow CH_3$ Formal- Dimethyl dehyde amine

(d).Reaction with nitrous acid :- Primary and secondary nitro alkanes react with nitrous acid and give blue coloured nitroso derivatives

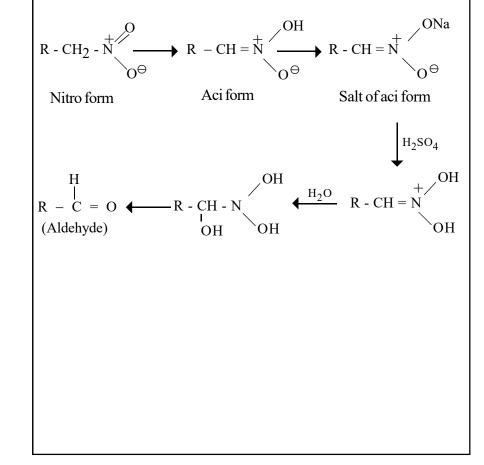
$$R - CH_2 - NO_2 + HONO \longrightarrow R - CH_2 - NO_2 + HOH$$

NO
Soluble in alkali

25

$$R - CH - NO_{2} + HONO \longrightarrow R - C - NO_{2}$$
Insoluble in alkali
$$R - C - NO_{2} + HONO \longrightarrow No reaction$$

(e). Nef reaction:- Salts of Aciform of primary and secondary nitro alkanes on hydrolysis with sulphuric acid gives aldehydes and ketones. This reaction known as Nef reaction.



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4C-14

Nitrogen Compounds

AMINES

NITROGEN COMPOUNDS

1. What are amines? How are they classified?

Methyl amine

(a). Primary amines (R-NH₂),

(b). Secondary amines (R₂-NH)

(c). Tertiary amines (R₃-N)

 $\begin{array}{ccc} CH_3 & & & & \\ I & & & \\ CH_3 - N - CH_3 & & & \\ \hline Trimethyl amine & \\ Tri phenyl amine \end{array}$

 $\begin{array}{c} H & H \\ I \\ CH_3 - N - CH_3 \\ \end{array} \xrightarrow{} O - \stackrel{H}{N} - O \\ \end{array}$

Dimethyl amine Di phenyl amine

Aniline

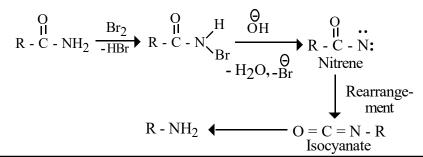
2. How are the aliphatic amines prepared?

Preparation methods :-

i) **Hoffman's degradation :-** Amides on treatment with Bromine in alkali gives amines. This reaction is known as Hoffman's degradation reaction.

> $CH_3CONH_2 + Br_2 \xrightarrow{KOH} CH_3NH_2$ Methyl amine

Mechanism:-



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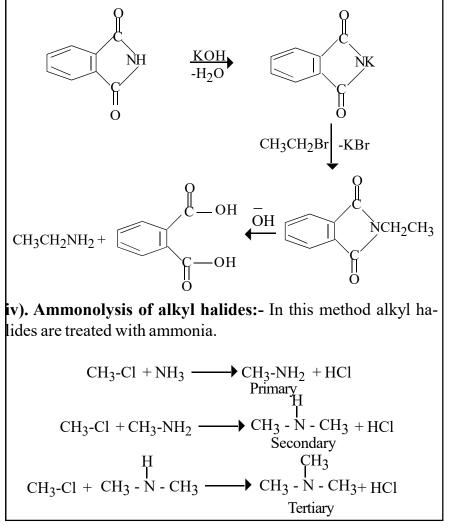
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ii) Schmidt Reaction :- Carboxylic acids on treatment with hydrazoic acid in presence of sulphuric acid gives amines. This reaction is known as schmidt reaction.

$$CH_3 - C - OH + N_3H \xrightarrow{H_2SO_4} CH_3 - NH_2$$

iii) **Gabrieal Synthesis :-** In this method, N-alkyl phthalimide on basic hydrolysis gives 1⁰amines



a Citar and	0	٢.
Nitrogen	Compound	S

3. Explain the basic character of Amines.

Amines are basic. According to lewis theory, electron pair donor is a base. As amines are electron pair donors, they are basic. The strength of the basic character of amines depends upon its ability to donate its electron pair. The more the tendency of donating electron pair by the amines, the more is their basic character.

Tertiary amines are less basic than secondary amines.

Alkyl groups, through their inductive effect, increases the electron density on the nitrogen in amines. As a result, amines freely donate electron pair to others. Hence, they are more basic than ammonia. That is why, 1^0 amine is more basic than ammonia, 2^0 amine is more basic than 1^0 amine. Similarly, 3^0 amine is expected to be more basic than secondary amine but its is not so.

It is less basic than 2^0 amine. This is because of steric hinderance. Due to steric hinderance, the electron pair present on 3^0 amine is not available for protonation. Hence, 3^0 amine is less basic than 2^0 amine.

Aromatic amines are less basic than aliphatic amines

О́- № - Н Н	<	сн ₃ - N - Н
Aniline		Methyl amine

29

28

Aromatic amines are less basic than aliphatic amines. Because in aromatic amines, the electron pair present on the Nitrogen atom involves in the resonance. Due to involvement of electron pair in the resonance. This electron pair is not available for donation. Hence, aromatic amines are less basic than aliphatic amines.

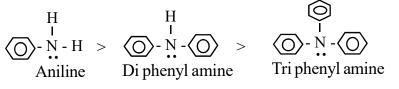
4. Why N, N dimethyl aniline is more basic than aniline ?

Due to electron releasing methyl groups, the electron density on the nitrogen atom of N, N dimethyl aniline increases. Hence, the electron pair, present on the nitrogen atom of N, N dimethyl aniline is more available than the electron pair present on the nitrogen atom of aniline. Hence, N, N dimethyl aniline is more basic than aniline.

$$H - \dot{N} - H \qquad H - \ddot{N} - CH_3 \qquad CH_3 - \ddot{N} - CH_3$$

Aniline N-methyl aniline N,N-dimethyl aniline

5. Why Aniline is more basic than N,N diphenyl aniline ? N,N-diphenyl aniline is less basic than aniline because in N, Ndiphenyl aniline, the delocalisation of electron pair is more than aniline. Hence, the electron pair is less available for donation than aniline. Hence, N, N-diphenyl aniline is less basic than aniline. In other words, due to delocalisation of electron pair present on the Nitrogen over the two phenyl rings, the basic character of N, N -diphenyl aniline is reduced.



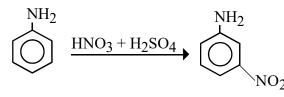
4C-16

30 Nitrogen Compounds 4. Write any THREE properties of aliphatic amines. 1. Reaction with alkyl halides (Alkylation): 1⁰ amines on treatment with alkyl halides give N-alkyl amines. CH₂ $CH_3.NH_2 + CH_3Cl \longrightarrow CH_3NH + HCl$ 2.Acetylation :(Acylation) 1⁰ amines on reaction with acid chlorides give N-substituted amides. $CH_3 - C - Cl + CH_3 - NH_2 \longrightarrow CH_3 - C - NHCH_3 + HCl$ **3.Reaction with nitrous acid :**a) Primary amines with Nitrous acid produce Nitrogen gas (as bubbles) $CH_3 - CH_2 - NH_2 + HONO \longrightarrow N_2 + H_2O + CH_3 - CH_2 - OH$ b)Secondary amines with nitrous acid produce yellow oily layer. $CH_3 - CH_2 - NH + HONO \longrightarrow CH_3 - CH_2 - N - NO$ c) Teritiary amines with nitrous acid form soluble nitrite salts $(CH_3CH_2)_3N + HONO \longrightarrow (CH_3 - CH_2)_3 NHONO$ This reaction is used as a basic test to distinguish $1^0, 2^0 \& 3^0$ amines. 5. Discuss the properties of aromatic amines. (i). Electrophilic substitution reactions:a) Bromination : aniline on treatment with Bromine water gives 2,4,6-tribromo aniline NH_2 $\rm NH_2$ $|+3Br_2 \longrightarrow +3HBr$ 2.4.6 - Tribromo aniline

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b) Nitration : aniline on reaction with mixture of con. HNO3 and H₂SO4 gives meta-nitro aniline



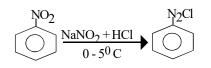
<u>ii). Oxidation</u>:- Aniline undergoes oxidation with $K_2Cr_2O_7$ to gives p-Benzoquinone.



iii). Carbylamine reaction :-Primary amines react with chloroform in alkali gives isocyandies. This reaction is known as phenyl isocyanide reaction.

$$\bigcirc$$
 NH₂+CHCl₃+3KOH \rightarrow \bigcirc NC + 3KCl + 3H₂O

iv). Diazotisation :- The conversion of aromatic primary amines in to diazonium salts is known as diazotisation



6. Explain Hinsberg method for the seperation of amines.

In this method, the mixture of amines is treated with benzene sulphonyl chloride and shaken with 5 percent caustic potash solution.

Primary amine forms alkyl benzene sulphonamide, which dissolves in caustic potash forming potassium salt. Secondary amine forms dialkyl sulphonamide, which does not dissolve in caustic potash. Tertiary amine does not react with benzene sulphonyl chloride.

$$\begin{array}{cccc} C_{6}H_{5}SO_{2}Cl + HNHR \xrightarrow{-HCl} & C_{6}H_{5}SO_{2}NHR \xrightarrow{KOH} & C_{6}H_{5}SO_{2}NKR \\ Benzene sulphonyl pr.amine \\ chloride & sulphonamide & sulphonamide & in water) \\ \hline C_{6}H_{5}SO_{2}Cl + HNR \xrightarrow{-HCl} & C_{6}H_{5}SO_{2}NR \xrightarrow{KOH} \\ R & R & R \\ sec.amine & Dialkyl sulphonamide insoluble in \\ water or KOH; soluble in ether \\ \hline C_{6}H_{5}SO_{2}Cl + & NR & \longrightarrow \\ No action \\ R & R \\ c_{6}H_{5}SO_{2}Cl + & NR & \longrightarrow \\ R & No action \\ R & R \\ c_{6}H_{5}SO_{2}Cl + & NR & \longrightarrow \\ R & No action \\ R & R \\ c_{6}H_{5}SO_{2}Cl + & NR & \longrightarrow \\ R & No action \\ R & R \\ c_{6}H_{5}SO_{2}Cl + & NR & Mo action \\ R & MR & Mo action \\ R & MR & MO \\ R & MR & MO \\ c_{6}H_{5}SO_{2}Cl & Cl \\ R & MR & MO \\ R & MR & MO \\ C_{6}H_{5}SO_{2}Cl & Cl \\ R & MR & MO \\ R & MR & MO \\ C_{6}H_{5}SO_{2}Cl & Cl \\ R & MR & MO \\ R & MR & MO \\ R & MR & MO \\ R & MR \\ C_{6}H_{5}SO_{2}Cl & Cl \\ R & MR \\ R & MR \\ C_{6}H_{5}SO_{2}Cl & Cl \\ R & MR \\ R & MR \\ MR &$$

The entire product, thus obtained, is extracted with ether. Tertiary amine and dialkyl benzene sulphonamide being insoluble in water, pass over to the ethereal layer. Potassium alkyl sylphonamide remains in the aqueous layer. The aqueous and the ethereal layers are then seperated.

The aqueous layer (containing $C_6H_5SO_2NKR$) is acidified with dilute hydrochloric acid, alkyl benzene sulphonamide is produced. It is next heated with concentrated hydro chloric acid.

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4C-18

Monoalkyl benzene sulphonamide gets hydrolysed and forms the hydrochloride of primary amine. The latter is distilled with caustic soda to regenerate primary amine.

$$\begin{array}{rcl} C_6H_5SO_2NKR &+ &HCl (dil.) \longrightarrow & C_6H_5SO_2NHR + KCl \\ \mbox{Pot.alkyl sulphonamide} & & Monoalkyl sulphonamide \\ \mbox{C}_6H_5SO_2NHR &+ & H_2O & & C_6H_5SO_2.OH + RNH_2.HCl \\ & & Benzene sulphonic acid \\ \mbox{RNH}_2.HCl &+ & NaOH & & & RNH_2 + NaCl + H_2O \\ & & & pri.amine & & & pri.amine \end{array}$$

For the recovery of tertiary and secondary amines, the ethereal layer is fractionally distilled. Tert.amine passes over leaving behind the solid dialkyl benzene sulphonamide. The latter is hydrolysed by concentrated hydrochloric acid and then distilled with caustic soda to get secondary amine.

$$C_{6}H_{5}SO_{2}NR + H_{2}O \xrightarrow{Conc.HCl} C_{6}H_{5}SO_{2}.OH + RNH.HCl$$

$$RNH.HCl + NaOH \longrightarrow RNH + NaCl + H_{2}O$$

$$R + Hydrochloride sec.amine$$

VALUE ADDED COURSE

ON

HOUSE HOLD CHEMICALS



S.K.R.GOVERNMENT DEGREE COLLEGE (W) RAJAMAHENDRAVARAM DEPARTMENT OF CHEMISTRY 2022-2023

From

Dr.M.Sunitha, Incharge of the Department of chemistry, S.K.R.Government Degree College (W), Rajamahendravaram.

To The Principal,

S.K.R.Government Degree College (W),

Rajamahendravaram.

Sub: To start Value added course on "House Hold Chemicals" submitting Proposals regarding...

Respected madam,

We the Department of Chemistry planned to start value added course for II year B.Sc students from 02/01/2023 to 01/03/2023 i.e., 2 months course (36 hrs.) on House Hold chemicals.

We are going to start in the academic year 2022-23 i.e., 02/01/2023 to 01/03/2023. So this is our humble request to permit us for conducting the above course.

Principal

PRINCIPAL S.K.R. Government Degree College (Women)-RAJAMAHENDRAVARAM. East Godavan Dist., Andhra Pradesh Thanking you madam,

If stout

Dr.M.Sunitha

Dr. M. Sunitha Tk Lecturer in Chemistry S.K.R. Government Degree College (W) BAJAMAHENDBAVARAM.

SKR GOVT.DEGREE COLLEGE (W), RAJAMAHENDRAVARAM

DEPARTMENT OF CHEMISTRY

VALUE ADDED COURSE- 2022-23

REPORT:

As a part of academic activity, the department of chemistry has conducted Value added course in 'House Hold Chemistry' from 2.01.2023 to 02.03.2023 for the academic year 2022-2023. The important objective of the course is to improve basic knowledge of preparation of house hold chemicals and their need in day to day life. It is very economic and useful to every common man.

The Chemistry faculty member have engaged classes for 36 hrs. At the end of the course, an external examination with multiple choice questions has conducted for the assessment of learners understanding levels of knowledge .The minimum qualifying of marks for the award of certification is 40%. All the students completed the course successfully and got certificates during the academic year 2022-2023.

SKR GOVT.DEGREE COLLEGE (W), RAJAMAHENDRAVARAM

DEPARTMENT OF CHEMISTRY

VALUE ADDED COURSE- 2022-23

The faculty members of the Chemistry department met in the Principal chamber to discuss and to review the conduct of the Value Added course titled "House hold Chemicals" under the chairman ship of the Principal and the faculty of the department of Chemistry on 20.12.2022. AGENDA:

Starting of Value Added Course for II B.Sc., students.

RESOLUTIONS:

- It is resolved to start the Value Added Course titled "House hold Chemicals" from 02.01.2023 (36 hrs duration) for the academic year 2022-2023.
- (2) It is also resolved to frame the syllabus, regulations for the successful completion of the certificate course titled "House hold Chemicals".
- (3) Enrolled 30 students for this course.
- (4) Resolved to conduct classes from 4.30 PM onwards in the college campus.
- (5) Resolved to conduct exam after completion of the course and issue certificates to qualified candidates.

(6) Qualifying mark is 40 %.

MEMBERS PRESENT:

1 2 VBJ Sund 3 N. A Ani 4 P 5 NGV. Snarkini SIGNATURE

Dr.P.RaghavaKumari

PRINCHIRE S.K.R. Government Degree College (Nomeo) RAJAMAHENDRAVARAM. East Godavari Dist., Andhra Pradesh,

CIRCULAR

DATE 21.12.2022.

This is to inform that the Department of Chemistry is going to conduct Value added course from 02.01.2023 to 11.03.2023 for Second year students of B.Sc C.B.Z., on "**House hold Chemicals**" preparations. The students who are interested can enroll their names in the department of Chemistry on or before 27.12.2023. The duration of the course is 2 months (36 Hrs). The candidates who secure 40% of the marks in the examination will get the certificate.

(and initial)

(Dr.M.Sunitha)

Incharge of the Department

SKR GOVT.DEGREE COLLEGE (W), RAJAMAHENDRAVARAM

DEPARTMENT OF CHEMISTRY

VALUE ADDED COURSE- 2022-23

LIST OF STUDENTS ENROLLED

"HOUSE HOLD CHEMICALS"

S.No.	Name of the student	Hall ticket number
1.	Bade Mahalakshmi	210907101002
2.	Bandaru Naga Srujana Kanaka Mahalakshmi	210907101003
3.	Ganneti Baby	210907101007
4.	Gavara Uma Bhanu Naga Sridevi	210907101008
5.	Kakuri Rama Lakshmi	210907101013
б,	Madakam Ramulamma	210907101018
7.	Pamparaboyina Siri	210907101019
8.	Karam Vishnavi	210907110112
9.	Karri Bhanu Prasanna	210907110113
11.	Kondapalli Mrudula Devi	210907110116
12.	Kotla Kameswari	210907110118
13,	Kote Naga Lakshmi	210907110120
14.	Kulla Sridevi	210907110121
15.	Madam Sravani	210907110128
16.	Mohhammed Soha Alia	210907110131
17.	Muchi Ranjitha	210907110133
18	Mulavada Charmila	210907110134
19.	Pallala Hema Latha Reddy	210907110139
20.	Poluju Priyanka	210907110140
21.	Potula Gnana Roopa Sri	210907110141
22.	Pyla Revathi	210907110142
23,	R Nandini	210907110143
24,	Relangi Navya Sridevi	210907110144
25.	Sode Ishwarya	210907110152
26.	S Nagajyothi	210907110153
27.	S Neeraja	210907110154
28.	Tupuri Shanthi	210907110159
29.	Uppu Deepika Sravanthi	210907110160
30,	Yandamuri Prasanna Sai Amrutha	210907110165

DEPARTMENTOF CHEMISTRY

VALUE ADDED COURSE

"HOUSE HOLD CHEMICALS"

Objective of the course : To make the students well acquainted with the knowledge of preparation of house hold chemicals and their need in day to day life. It is very economic and useful to every common man.

Course duration : 36 hrs Level : UG Course type : Scheduled Certification: Certification will be given on the continuous comprehensive evaluation of students performance in the learning activities.

SYLLABUS OF THE COURSE

Contact Hrs: 36

UNIT I (9 Lectures)

Household chemicals: History of household Industry, Basic Theory of Household Chemicals, and Raw material required for household product, Product manufacture in household industry. Role of household product in day to day life.

UNIT II (9 Lectures)

Cleaning agents: Introduction, synthesis and applications of Natural cleaning agents, cleaning action, Floor cleaner, Toilet Cleaner, Bathroom Cleaner, Kitchen Cleaner

UNIT III (9 Lectures) Detergents and surfactants: Introduction; Different terms used in detergents; Raw materials for detergents; Washing action of detergents; Types of detergents; Introduction of surfactants; Types of surfactants.

UNIT IV (9 Lectures)

Detergents and surfactants:

Technology of Soap: Chemistry of soap; Raw material for soap industry and their selection; hard fats yielding and oil yielding soaps; Chemical reactions of soaps; Hard and Soft soaps; Plant and process employed in soap manufacture; Liquid hand wash and liquid dish wash.

Recommended Books: (Unit wise)

 Small scale industries and house hold industries in developing economy by Shetty M.C. (Unit I)

Manufacture of perfume cosmetics and detergents by Prasad Giri Raj (Unit V)

3. Industrial chemistry by B.K.Sharma (Unit I and II)

4. Flavours & Essential oils, Industries SBP Board (Unit III)

5. Perfumes soaps & cosmetics by Poucher. (Unit III)

6. Manufacture of perfumes, cosmetics and detergents by Giriraj Prasad (Unit IV)

7. Manufacture of perfumes, cosmetics and detergents by Prasad. (Unit IV)

Learning Outcomes:

Unit I Household Chemicals

1. The students should learn fundamentals household chemicals.

The students should define house hold products, various processes of household products

The students should explain preparations and reactions of household chemicals, history of household products.

Unit II Cleaning agents

1. The students should learn fundamentals of various cleaning agents.

The students should define natural, floor, toilet, bathroom and kitchen cleaning agents

The students should explain preparations and reactions of natural, floor, toilet, bathroom and kitchen cleaning agents

Unit III Technology of Soap

- 1. The students should learn technology of soap
- 2. The students should define soap, hard and soft soap, liquid soap
- The students should explain preparations and reactions of soap, liquid soap

Unit IV Detergents and surfactants

- 1. The students should learn fundamentals of detergents and surfactants
- 2. The students should define detergents, surfactants

The students should explain preparations and various types of detergents and surfactants

Practical Course: Preparation of various household Products

Contact Hrs...

- 1. Preparation of Washing Powder
- 2. Preparation of Homemade Soap
- 3. Preparation of Cleaning Powder
- 4. Preparation of Vaseline
- 5. Preparation of Pain Balm
- 6. Preparation of Phenyle

Project course: Project on Preparation of household Chemicals

S.K.R GOVERNMENT DEGREE COLLEGE(W) RAJAMAHENDRAVARAM DEPARTMENT OF CHEMISTRY CERTIFICATE COURSE/VALUE ADDED COURSE HOUSE HOLD CHEMICALS

5.No.	Regd.no	Name of the student	Signature of the student
1.	210907101002	Bade. Mahalakshmi	B. Mahalakshmi
2	210907101003	Bandaru.N.S.K.Mahalakshmi	B.N.S.K. Mahala Kshmi
3.	210907101007	Ganneti. Baby	G. Baby:
4.	210907101008	Gavara Uma B Naga sri devi	G. U. B. N. Snideui.
5.	210907101013	Kakuri Ramalakshmi	K. Ramala kshimi
6.	210907101018	Madakam Ramulamma	M. Ramulanine
7.	2109 07101019	Pamparaboyina Siri	P. Sioli
8.	210907110112	Karam Vaishnavi	K. valdhnaus
9	210907110113	Karri Bhanu Prasanna	KB Droganna
10.	210907110116	Kondapalli Mrudula devi	K. Kansescevi mondula
11.	210907110118	Kotla Kameswari	K. Kamescoari
12.	210907110120	Kote Nagalakshmi	X. Magalakshmi
13.	210907110121	Kulla Sridevi	K. Sorder?
14,	210907110128	Madam.Sridevi	M. Goidevi
15.	210907110131	Md.Soha Alia	md. Sohe dlia.
16.	210907110133	Muchi.Ranjitha	M. Rangitha
17.	210907110134	Mulavada Charmila	M chan la
1,8,	210907110139	Pallala Hemalatha reddy	P. Priyanko R. Hes
19.	210907110140	Poluju Priyanka	p. priyanka
20.	210907110141	Pothula.Gnana Roopa sri	P.G. Mapo-revi
21,	210907110142	Pyla Revathi	PRevathi
22,	210907110143	R.Nandini	R. Namdini
13.	210907110144	Relangi.Navya sridevi 🛛 🚽	R. Maya Assident

27.	210907110159	Tupuri.Shanthi	T. shanthi
28.	210907110160	Uppu.Deepika sravanthi	U.D. stavanthi
29,	210907110165	Yandamuri p Sai Amrutha	Y. P.S. Amrutha
30.	210907101022	Rolupalli L Sowjanya	R. L Sow Janyo

Poucher's Perfumes, Cosmetics and Soaps

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10th Edition

Edited by

Hilda Butler Editor and Consultant to the Cosmetic Industry

Library of Congress Cataloging-in-Publication Data is available.

ISBN 0-7514-0479-9

Published by Kluwer Academic Publishers, P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

Sold and distributed in North, Central and South America by Kluwer Academic Publishers, 101 Philip Drive, Norwell, MA 02061, U.S.A.

In all other countries, sold and distributed by Kluwer Academic Publishers, P.O. Box 332, 3300 AH Dordrecht, The Netherlands.

Publisher's Note: This edition of Poucher's Perfumes, Cosmetics and Soaps is the tenth edition of what was formerly Volume 3 of the ninth edition of Poucher's Perfumes, Cosmetics and Soaps (ISBN 0-412-27360-8).

Printed on acid-free paper

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Printed and bound in Great Britain by Antony Rowe Limited.



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Grace Abamba, MSc, DMS, PGCE Technical Manager Superdrug Stores PLC 118 Beddington Lane Croydon, CR0 4TB UK

Michael Brown, BSc (Hons) CChem MRSC Scientific Advisor (Suncare) Boots Contract Manufacturing D98 Ground 160 Nottingham, NG90 2JF UK Hilda Butler, CChem, FRSC Cosmetics Consultant/Editor 9 Foxdell Northwood Middlesex, HA6 2BU UK John S. Cannell, MSc FRPharmS, CChem, FRSC, MBIRA 16 Hiltingbury Road Chandlers Ford Eastleigh Hampshire, SO53 5ST UK

Nicola A. Fardell, BSc (Hons) Boots Contract Manufacturing D98 First 173 Nottingham, NG90 2JF UK

Jean Ann Graham, MSc, PhD Psychological Research Consultant Flat 12, 94 St Gcorge's Square London, SW1V 3QY UK

Anthony L.L. Hunting, BSc Proprietor Micelle Press 10-12 Ullswater Crescent Weymouth Dorset, DT3 5HE UK

Philip Klepak, Director, Technical Services Reheis Inc. Berkeley Heights New Jersey 07922 USA John L. Knowlton, CChem, MRSC, SCS Dip Consultant/Proprietor Cosmetic Solutions PO Box 8456 Centurion 0046 South Africa Carol E. Lees, B.Pharm.

R&D Category Manager Sara Lee Household & Body Care Ltd. 225 Bath Rd, Slough Berks, SL1 4AU UK

viii Contributors

Stephen Mason, PhD, CChem.,

MRSC

3

Quintiles 79 High Street Bracknell, RG2 IDZ UK J.R. McAllister, PhD, CChem, MRSC TQ Associates Langdon Lodge East Riding, HU18 IDP UK John D. Middleton, BA(Oxon), Dip R C Path Toxicologist Quest International Ashford Kent, TN24 0LT

UK

Bryan P. Murphy, PhD Associate Director, Product development Bristol-Myers Squibb Worldwide Beauty Care 2 Blachley Road Stamford, CT06922 USA

Paul Paniccia, BSc, ARCS, CChem., MRSC Formulation Research Manager Gillette R&D Laboratories 454 Basingstoke Rd. Reading Berks, RG2 0QE UK Pauline A. Riley, BSc, CChem, MRSC S. Black (Import and Export)Ltd. Foxholes Business Park

John Tate Road Hertford Herts, SG13 7YH UK Marion E. Roberts, BSc(Hons) 1, Blackhouse Farm Cottages Bradwell Road St Lawrence Southminster Essex, CM0 7LH UK

Mitchell L. Schlossman Kobo Products 690 Montrose Ave. South Plainfield NJ 07080 USA Kenneth Spears, BSc, MPhil, PGCE, FIFST School Academic Director School of Applied Science South Bank University 103 Borough Road London, SEI 0AA UK Norman J. Van Abbé, FRPharmS Esher Surrey, KT10 0AB UK

Jack Walkey Wilfrid Smith Ltd. Elm House Medlicote Close Oakley Hay Northants, NN18 9NF UK

Contributors ix

Paul D. Wilkes, BSc, PhD Head of Regulatory Affairs The Body Shop International PLC Watersmead Littlehampton West Sussex BN17 6LS UK

Michael J. Willcox Technical Director Standard Soap Company Limited Castle Soap Works Derby Road Ashby de la Zouch Leicestershire, LE65 2HG UK

Preface to the 9th Edition

Cosmetic Science has developed greatly since the publication of the 8th edition of this textbook in 1974. Although the first part of this volume still consists of chapters about product preparations in alphabetical order, each product category has been revised and updated by a specialist. An outline of the biology, structure and function of skin, hair, teeth and nails and the reasons for the need for cosmetics are given in those dealing with the relevant preparations. Throughout, the word Cosmetics includes toiletries and thus all products which protect, cleanse, adorn, and perfume the human body, and combat body odour and perspiration.

The 'f' spelling for the element 'sulfur' and its derivatives has been used following the recommendations of the International Union of Pure and Applied Chemistry (IUPAC) and the decision taken by the Royal Society of Chemistry (RSC) and the British Standards Institute (BSI) to use 'f' instead of 'ph' in all their publications. This stems from the derivation of the use of the 'f' from Latin and its use in England until the 15th century.

Deionized water has been used in the formulations because many manufacturers standardize the water supply to the factory by removing cations and anions by exchange resin treatment. This lessens the variation in ionic content which can occur in the mains water. A typical design for a water supply of constant quality in factories, which can be tailored to fit local conditions, was described for the Max Factor Company by N. Wheeler and J. Kilsheimer in the Water Documentary issue of *Cosmetic and Toiletries* in 1983. The properties of the water supply and its treatment are also discussed elsewhere, especially in Chapter 15, page 403 and Chapter 21, page 595.

In most formulae the quantities for preservatives and perfume are indicated by 'q.s.'- *quantum sufficit*. It would be unwise to be more exact when the actual quantities depend on the results of research on each formulation where differing raw materials, methods and conditions of production will occur. In some formulae the main ingredients already add up to 100 and the preservatives and perfume appear as extras – q.s. When these two are determined as a result of tests and the two quantities are significant then an equivalent amount can be deducted from the largest ingredient present to maintain the total at 100.

xii Preface

These tests at the development stage will be described by the chapters in the second part and give an idea of the research needed to produce a safe, stable and successful product which is acceptable to Governments and Consumers alike. This would have been appreciated by Poucher who at the end of the preface to the 6th edition, advised: 'keep the formulations simple' and 'give the experiments long shelf tests, with frequent observations before finally approving a formula'.

In a previous volume Poucher included a historical sketch. This has been retained and brought up to date in the present edition, followed by a chapter of advice on perfuming products, and finally one on the psychology of fragrance. My thanks are due to the authors who have spent so much time and trouble in providing their contributions; and to all others who have helped to make this book possible.

Hilda Butler, Editor 1992

Foreword to the 9th Edition

There can be no doubt as to the importance of cosmetics and cosmetic science – this edition of *Poucher's Perfumes, Cosmetics and Soaps* is at once powerful evidence of the importance of its subject and of the detailed study of its applications. Cosmetics are as old as mankind itself. Even in the most primitive societies the use of deodorants and decorative cosmetics was universal, and the same basic objectives remain unchanged today although the means employed to further them are now far more complex and are scientifically based and controlled.

The importance of the subject fully warrants the increasing attention being paid to it in recent years and this new edition of Poucher illustrates both the advances made to date and direction of further progress. Mrs Hilda Butler is to be congratulated on her provision of a volume both practical and fascinating as well as comprehensive and I commend it not just to the practitioners of cosmetic science but to all chemists interested in the practical development of their science.

Lord Todd OM, FRS Cambridge, 1992 Editor's note: Lord Todd retired as patron of the Society of Cosmetic Scientists in 1996 after giving his support for a number of years and died on January 10th, 1997.

Foreword 2000

Having been asked by Hilda Butler to write a forward to this tenth edition of my late father's *Perfumes, Cosmetics and Soaps,* I thought it would be instructive to re-examine my copy of the first edition of this work published in 1923 by Chapman and Hall entitled *Perfumes and Cosmetics.*

I was surprised to find that it contained seventeen advertisements, presumably to lower the cost of production, from suppliers of raw materials, machinery and a journal, *Perfumery & Essential Oil Record* (well known in the industry then and for many years after).

Although, in Poucher, the first part, a dictionary of raw materials, contained cosmetic as well as perfume materials (150 pages), the section (part 3) on cosmetics products with descriptions and formulae occupied 120 pages, while in the middle section 160 were devoted to monographs on essential oils, methods of extracting them and formulae for fragrances using them. A review in the *Chemist and Druggist* stated: 'The book is a good one. The matter is sound and practical, the get-up and illustrations are excellent, and it is quite free from gross errors, a thing that can hardly be said of nearly every book on perfumery that has appeared in late years. We cordially recommend it to all interested in practical perfumery.'

One of my late father's aims was to make cosmetics less costly so that they would be available to women in all walks of life, whereas at the time they were on the whole too expensive for all but the wealthier members in society.

It might surprise present readers that he was the author of another book on Cosmetics, titled *Eve's Beauty Secrets*, published in 1926 by Chapman and Hall, in which he explains in non-technical language what cosmetic products are suitable for various skin types and how and when women should use them to enhance their appearance. In a review that appeared in the *American Perfumer* I find the following extract very revealing: 'Copies of this little book should be in the hands of those who at present are seeking to restrict and hamper the toilet preparations industry by the passage of state legislation. A copy on file in the New York Department of Health for the use of certain officials in their leisure moments would do much to keep them out of mischief'.

I spent nearly forty years in the industry and, though not a perfumer myself, was taught by perfumers to identify the odour of essential oils and other raw materials. Neither am I a cosmetic chemist, and therefore the technicalities of

xvi Foreword 2000

this branch of science is a closed book to me. However I do realise that the number of new raw materials coming on to the market and the global expansion of the industry has given rise, of necessity, to the increasing complexity of today's regulations on safety, quality etc., which means that it is imperative for the information in this treatise to be as up-to date as possible, and undoubtedly Mrs Butler has seen that it has been revised to meet this challenge.

I commend this new edition to all cosmetic chemists and others who are interested in the art and science of cosmetics.

John Poucher Cockermouth, Cumbria January, 2000

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is 'chemical' and the application of science can offer many more guarantees of nate fear of anything 'chemical', demands natural oils, unaware that everything purity and safety for simple synthetics. made to the buyer. Unfortunately today the modern consumer, having an inordiresult is a product which is 100% pure and exactly reproducible for each delivery in chemical composition to the natural isolates: the 'menthol molecule' is one. The

of the natural flower they certainly attain a close approximation. Furthermore the wide range of synthetic chemicals enables the perfumer to create new odours.' lows analysis and while the synthetics may not exactly reproduce the fragrance Still in 1923, Poucher goes on to say that 'Synthesis as a natural sequence fol-

their use. For cyclamen he included one giving a good imitation of the flower detailed chemistry or analysis. He included in some cases formulae to illustrate sources and properties, and mentioned standard works of reference for more stressed that he had included the more important of them with their varieties, should know as much as possible about the raw materials he was using, and chemist-perfumer'. In the preface Walter considered it essential that the perfumer and Miscellaneous Bodies, including pigments and dyestuffs of interest to the volume in later editions. The first part contained a 'Dictionary of Raw Materials The volume was divided into three parts, each of which became a separate

ingredient of 'ambers, chypre, carnation, trèfle, foin coupé and orchidée'. several of clary sage, Salvia sclarea, which at that time was an indispensable of the aromatic plants including one of rosemary in England at Long Melford and There are several black-and-white photographs showing the cultivation of some

many glossy photographs throughout the book. bish. There is photograph of such a machine with girls operating it. There are high-speed revolving brush to remove the petals which fell to the floor as rubpetals. The Lautier Fils company solved this problem by using a machine with a spoilt the surface of the grease and made it uneven for the next layer of flower after absorption. The marks made by the girls' fingers when lifting the petals off essential oil were not only placed on by hand but also lifted off in the same way siderable. For jasmine, for instance, the petals placed on the fat to absorb the labour intensity of some of the operations, especially for Enfleurage, was conthe apparatus used to extract the oils and the storage vats in the factory. The the production of natural perfumes. There are a number of photographs showing Part II is on Perfumes, and in spite of his interest in synthetics is devoted to

Lilian H. Foster of New York (The American Perfumer, October 1922) as follows: At the beginning of Part III on cosmetics Poucher quotes an American,

and weather or of a laboratory so long as it pleases him. by a pink check, and he doesn't really care whether it's the result of wind many a family tree, for man has oft and anon been beguiled into matrimony Instead of propagating wallflowers the rouge pot has nourished the roots of

9 Poucher's Perfumes, Cosmetics and Soaps

not the make-up box receive its due and be accorded recognition as a valued beauty, a double function combining the useful and the ornamental, should As it serves as a worthy commodity of commerce and as an adjunct to

were not in those days recognized as deodorants. are no antiperspirants. Toilet waters had appeared in 'Perfumes' in Part II – they ical order, but most of the groups appearing today do not occur; for instance there First World War. There are typical products of the period in chapters in alphabetclearly those products used by men and women in the early years just after the The section is quite small in comparison with today's volume but shows quite

are followed by bath tablets and powders and bath fluids. Bath potpourri and using borax, and their production, tinting and perfuming are described. These ucts start with bath crystals formed from sodium carbonate and then a formula The formulae themselves are extremely interesting. For instance bath prod-

goes on to give a numerical formula for calculating the way to arrive at the commercial values of potash (x) varied considerably from 78% to 83%, Poucher amount (y) needed to neutralize the oil. He describes how the potash should be are made from saponifying odourless [sic] Cochin Oil with potash.' But since the following appears: 'Cocoa-nut oil Shampoos frequently known as Emulsified, formulated using soap powder or made in situ from alkalis and natural oils. The henna. The shampoos, except for the dry shampoos, are all based on soap, and pomades, lotions, tonics, hair-curling applications, hair restorers, shampoos and There was a chapter on hair preparations which included brilliantines,

alkali are necessary, whereas when it turns red more oil is necessary. thalein as an indicator - if the liquid remains white further additions of the same temperature. The reaction can be controlled by using phenolph-'dissolved in a 1000 grams of water heated to 75°C and added to the oil at The formula now reads:

Distilled water to produce Potassium carbonate Potassium hydroxide Distilled water Cocoa-nut Oil 5000 c.c. 30 grams y grams 1000 c.c. 1000 grams

The liquid soap is left to deposit and the clear solution decanted as

cold cream described in the skin preparations chapter. shampoos. The same can be said for emulsifiers, although the physical action of 'emulsification' is recognized when borax is added to the beeswax/mineral oil There were no named 'detergents' to use to make the later so-called soapless

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latest developments in legislation in Europe, the USA and Japan, but also each separately outlines the steps which should be taken to comply with them.

In Europe the 6th Amendment has been added to the 1976 Cosmetic Directory, and this means considerable control of cosmetics today. Although these controls or similar ones are spreading to other countries they are not yet in force worldwide. There have been attempts by international meetings to bring this about, but it remains an ideal to be aimed at for the future when a cosmetic can be purchased and used anywhere in the world with absolute safety.

The other chapters in this Part support the obtaining of the legal requirements. In Europe under the 6th Amendment a Product Information Package (PIP) must be kept on each product and made available for inspection by the authorities, when required. Records of the test results of formulation development, batch checking during production, raw material and finished product specifications showing test results which comply with them, long-term storage stability of product and its package, and consumer safety-in-use must be included.

The chapter outlining methods of analysis gives some traditional methods but 'emphasis has been given to chromatographic and spectroscopic instrumental techniques because they represent the biggest areas of application, and the instrumentation involved has become much more accessible in terms of cost, reliability and the expertise needed to analyse samples', to quote its author.

During the development stage substantiation of the claims to be made when marketed must also be included in the PIP. There is a chapter discussing the use of human volunteer panels to assess the efficacy of products. During these trials, of course, any obvious adverse consumer reactions can be noted and the product formulation changed if necessary. Consumer panels are also used in the chapters on safety, microbiological control, stability, and in assessing consumer acceptance in perfume and the manufacture of consumer products. In the latter there is a discussion on the ethics of how the panels should be formed, and their responsibilities.

Panel trials, when all the tests which have been carried out in-house and by consumers at home seem to ensure that the product is safe and stable, long-term, also give an indication of whether this is still so with repeated consumer use in a different environment. Consumer comments are useful in many ways; one is on the assessment of the type of packing, e.g. is it easy to replace the lid of a jar or cap of a tube after use?

Thus if the information and guidelines are followed in this part of the book, so that the results of the investigation at the development stage of a new product are satisfactory and it is possible to repeat the results of the tests when in production and marketed, then the recording of the results which appear in the PIP should show that from its initial planned development through its manufacture and sale the product will be stable in long-term storage and safe in consumer use until the end of the material in the bottle, tube, jar, sachet or aerosol – in fact any pack used by the industry.

10 Poucher's Perfumes, Cosmetics and Soaps

So from his first pioneering work in 1923, which separated cosmetics and toiletries from pharmacy, and his production of updated editions, W.A. Poucher contributed greatly to the development of cosmetic science, which includes perfumery and soap.

As a result of his career in perfumery and cosmetics, in 1952 he became the first Honorary Member of the Society of Cosmetic Chemists of Great Britain (now the Society of Cosmetic Scientists) and in 1954 the US Society of Cosmetic Chemists awarded him their Medal for 'his outstanding contribution to the art and science of Cosmetics' (the first perfumer and the first person outside the USA to receive the honour). In 1956 he was elected Honorary Member of the USA Society of Perfumers in recognition of his distinctive service to the perfumery and cosmetic industries.

W.A. POUCHER'S OTHER CAREERS

Poucher once said that his 'life was a search for beauty in music, cosmetics and mountains', and he achieved much in pursuing this search.

As a child he wanted to be a concert pianist. He had a passion for Chopin's music and practised until all hours, so that 'his father had to turn out the gaslight in order to get him to bed'. In spite of not following this ambition he continued to play for pleasure until he sold his Steinway in 1958.

In his love of perfumes and the formulation of cosmetics he aimed to inspire men and women to beautify themselves, and this formed his main business career, but when he retired from Yardley at 65 years of age they presented him with a Leica camera. He then had plenty of time to increase and perfect his photographic records of the mountainous scenery he so loved and to develop his second career.

His love of photography began when he had a darkroom in a cupboard at the top of the cellar steps in his youth in his home in Lincolnshire, and through the years he had taken black-and-white photographs of the mountains and hills in the Lake District, Snowdonia, the Highlands of Scotland, the Pennines, Surrey, the West Country and Ireland, with in addition photographs taken during visits to the Alps, the Dolomites, and on the Riviera. The first publication was *Lakeland through the Lens* in 1940, which was followed by a further 20 books (13 published by Chapman & Hall and eight by Country Life), with many photographs in black and white covering the areas he loved best in the British Isles and the Dolomites.

He was elected first an Associate and then a Fellow of the Royal Photographic Society in 1942 and later Honorary Fellow in 1975, and donated to them his library of black-and-white prints in 1985. He changed to colour, and in 1980 Constable published his *Scotland*, and to date a further 15 titles have been published in coffee-table format, the last in 1997 some nine years after his death. This was made possible because Constable had approached his son to see

Hilda Butler

INTRODUCTION

A Cosmetic: Any substance or preparation intended to be placed in contact with the various parts of the human body (epidermis, hair system, nails, lips, and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view to exclusively or mainly to cleaning them, perfuming them, or changing their appearances and/or correcting body odours and/or protecting them or keeping them in good condition. (Definition of a Cosmetic, 6th Amendment (1993), Article 7a, EU Cosmetic Directory) The legal regulations cover all the products named in this book whether classed as toiletries or cosmetics.

The reason for a new edition of Poucher's volume on cosmetics is that during the years that have intervened since the last one there have been important developments, not only in the cosmetic industry but in cosmetic science, which cover the research in maintaining standards of quality in the development and regulation of the marketing of safe, stable products which the consumer can use with confidence. Young chemists using this new volume and benefiting from the information

on cosmetic science and facts about the industrial side of marketing cosmetics must wonder who the writer was whose opus is being revised and enlarged for the tenth time. Well, he was a man of great character with many interests which he followed

Well, he was a man of great character with many interests which he followed with great energy. He was born in Horncastle in 1891 and named William Arthur Poucher, but was known to family and friends as Walter (he preferred it that way). He went to the local primary and grammar schools here. He was

Butler, H. (ed.), Poucher's Perfumes, Cosmetics and Soaps, 10th Edn., 3–11 © 2000 Kluwer Academic Publishers. Printed in Great Britain

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4 Poucher's Perfumes, Cosmetics and Soaps

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apprenticed to a pharmacy, Carltons, then attended the College of the Pharmacentical Society in Bath where he obtained his PhC (Minor in 1912 and Major in 1913), winning the Bronze Medal in 1914. He studied for a time at Charing Cross Hospital with a view to a career in medicine, but was persuaded to join the Royal Army Medical Corps. He was commissioned in 1915 and promoted to Captain in 1918. He served in France mainly with the 41st Casualty Clearing Station and was demobbed in 1919 as Captain and Quartermaster.

After the war as a Vice-president of the League of Ex-service Pharmacists, and at the request of the Council he visited branches round the country to arouse public opinion regarding the state of the Army Pharmaceutical Service. He joined the United Chemists Association Ltd and became their Works Manager and Chief Chemist. On leaving UCAL he worked as an independent consultant to the Perfumery and Cosmetic Industry. He bought the soapmakers, R.F. Wright, which he later sold, and became Chief Perfumer of Yardley. He remained with them for 30 years until his retirement at 65. In his later years with this company his unique contract with Yardley allowed him to work for them for six months leaving him to follow his other pursuits for the rest of the year. His major creation for them was his perfume 'Bond Street'.

1923: FIRST EDITION: PERFUMES AND COSMETICS

In the 1920s he believed that 'it was unfair that perfumes were only available to Royalty, actresses and prostitutes' and as a consultant he was able to introduce inexpensive perfumes that could be obtained by office girls and shop girls. He also created new developments for perfuming cosmetic products.

Cosmetic chemistry was closely allied in those days to pharmacy, and specialist books on cosmetics were not printed. His experience and aims enabled him to write and have published in 1923 the first edition of this book entitled *Perfumes and Cosmetics, with especial reference to Synthetics;* this was contained in one volume. It was only in later editions that *Soap* was added to the title, and later editions expanded to form three volumes. The reference to synthetic aromatic materials is interesting because in the intervening three-quarters of a century they have become exceedingly numerous with many more suppliers marketing them. The cost of collecting and processing the natural extracts of oils from natural flower leaf and root oils rose considerably as higher wages were demanded and obtained under trade union influence, through the decades.

In the 19th century perfumery was considered to be an art, totally; but in the preface to the work Poucher opens with the observation that "The study of perfumes has a fascination unsurpassed by any other branch of chemistry. The researches of many distinguished scientists have gradually raised it from one of the minor arts to almost the level of a science.'

The analysis, isolation and identification of the component parts of the natural oils evolved and pure synthetic materials were made – some absolutely identical

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There was a chapter on lip salves and rouge sticks, and a separate one for theatrical make-up. It was some years before make-up was to be used by most women – developed commercially from the theatrical products and really popularized by the movie stars; but manicure preparations were included. The most amazing inclusion is a whole chapter on smelling salts! Face powders of different colours were included in toilet powders. Interestingly compact powders were already *in vogue* and information is given on manufacture by hand and/or machinery, and nursery powders are also included.

The book was a great success in its day and in 1925 the second edition was printed with a large expansion of Part I. To keep pace with the increasing size of the industry and use of cosmetics and perfumes generally by the public, subsequent editions appeared in 1928, 1930, 1936, 1942, reprinted in 1950, 1959, 1974, and again reprinted in 1976, 1979, and 1984 with an updated revised edition for Volumes 1 and 3, the 9th in 1993, and now the 10th. Poucher wrote them all until 1974 when he still wrote Volume 2 on perfumes, but Volumes 1 and 3 were revised by G.M. Howard.

I came to industry straight from college, having a chemistry degree with physics as subsidiary, and I used the 5th edition when a separate volume was first issued for cosmetics. I was totally ignorant of the knowledge needed for the specialized subject and found the volumes a fountain of information for formulation of the various products I was asked to develop. During the Second World War, when raw materials were in short supply or often non-existent, replacement formulations had to be manufactured on the spot. Poucher was invaluable. After the war when I changed jobs I had to leave the books behind, but I made sure that I replaced them – this time it was the 6th edition published in 1942 and reprinted in 1950.

In the preface Poucher again mentions the huge increase in new substances used by manufacturers, and enumerates the new finished products which have had to be added, i.e. bath oils, brilliantine creams (Beecham's hair cream for men was selling all over the world), hair lacquers, greaseless hair creams (gums were used: gum tragacanth, sodium alginate), a new type of hair dye, lipstick colours, mascara, eye lotions, skin food, deodorant sticks, complexion milk and powder sticks. Poucher also says:

I cannot impress on chemists too strongly the importance of *simplicity of formulation* in their experiments. Almost always a few well-chosen raw materials properly combined will give a more elegant and stable product than a long formula in which one ingredient may upset another and so spoil the balance of the finished product – the unsatisfactory result not always being apparent until after packing and despatch for sale.

Times have changed, and this last hazard is not likely to take place, as the following outline should demonstrate.

8 Poucher's Perfumes, Cosmetics and Soaps

TENTH EDITION: POUCHER'S PERFUMES, COSMETICS AND SOAPS

Now 58 years after Poucher wrote that preface industrial suppliers are offering increased numbers of new raw materials. Many form specialist groups, which with slight changes in molecular structure inspire improved formulations of existing products or new types not previously marketed. The manufacturers are guaranteeing good quality, that the materials have been thoroughly tested toxicologically, accepted for use in cosmetics, and they supply specifications for each batch showing the results of physical and chemical analysis including their microbiological status. They offer considerable help in establishing the grounds for the use of their products and usually supply evidence of the claims that can be made for their beneficial use.

The new volume is in four parts. After a historical start the chapters in Part 2, which deal with different products in alphabetical order, include examples of these new materials, their properties and uses. There are materials for which claims can be made for the finished product's feel on the skin, e.g. groups of substances such as the silicone polymer derivatives, which may also increase stability.

On offer today are new antiperspirant compounds, new emulsifiers, new colours, new surfactants, new sunscreens and many others and, because the public believe that 'natural ingredients' are safer to use than 'chemicals', many new extracts of plants and those used in past centuries are being offered for use.

Of course it is not true that, because these preparations were used for many years by many people, they are or will be safe for repeated use, or remain stable in the new type of basic products marketed today. Mass production, and storage in warehouses and in shops before sale, are serious challenges for stability compared with concoctions which were prepared in the family kitchens in days gone by and not kept very long before being used up. Today's challenges are described, and solutions discussed, in Part 3.

Also in Part 2 the physiological and biological functions of the skin, hair, teeth and nails, which were touched on in earlier editions and covered more fully in the 9th edition, are still included, but that and any other information which is repeated is needed for those who are not familiar with that work. This also acts as an easy reference and reminder. Apart from the new raw materials there are new forms of products and new methods of manufacturing them.

The industry has always realized that the authorities have in the past considered cosmetics unnecessary and trivial compared with the need for pure food and safe medicines, so to keep pace with the changing times the industry instituted its own voluntary guidelines for the manufacture and sale of cosmetics, to ensure the maintenance of good quality and excellent history of safety-in-use which they have always enjoyed.

However, as there have been areas in other fields where serious mistakes have been made in consumer goods, it has been thought necessary to introduce Legal Regulations to safeguard consumer confidence. A chapter in Part 3 covers the

SKR GOVT.DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENT OF CHEMISTRY VALUE ADDED COURSE- 2022-23 SUBJECT : HOUSE HOLD CHEMICALS

QUESTION PAPER

MARKS: 50

 1. Which of the following causes soap to lather. a) sodium carbonate c) sodium silicate 	b) sodium rosinate d) borax
 What is the use of tri sodium phosphate in soap po a) to make the soap act rapidly c) to prevent rapid drying 	w der? b) to make it lather d) for good odour
 3. Identify the cationic detergent from the following a) cetyltrimethyl ammonium bromide c) Penta erythritol monosterate 	b) Sonam dodecyl sulphate d) sodium lauryl sulphate
 4. Which of these are household poisons? a) toilet bowl cleaner c) cigarettes 	b) alcoholic drinks d) all the above
5. The best way to handle a household cleaner is to a) read the label c) keep a window open	b) use rubber gloves d) none of the above
 6. What's an indication that you should stop using a c a) You feel dizzy c) You develop a headache 	hemical? b) you feel nauseated d) any of the above
 7. Which of the following compound cannot remove g A) Gasoline C) Soap 	rease from the clothes. B) potassium palmitate D) potassium pentanoate
8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate	B) calcium stearate D) sodium benzoate
9) Soap is a? A) Sodium stearate C) Sodium acetate	B) calcium stearate D) sodium benzoate
 10) Detergent is A) Sodium stearate C) Potassium butyrate 	B) sodium alkyl sulphonate D) Sodium oleate.

11) Bath soap is a mixture of

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A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate	 B) Sodium and Calcium salt of higher i D) sodium Salsa higher fatty acids 	fatty acids
12) In human being and animals the oil and th		ies enzymes
A) diastase C) Lipase	B) zymase	
C) Lipase	D) None	
13) The chemical name of washing soda		
A) Mineral acid	B) Fatty acid	
C) Lactic acid7	D) Carbonic acid	
14) The process of manufacturing of soap is ca	ad	
A) Ion exchange		
C) Saponification	B) Allocation	
cy saponnication	D) Steam distillation	
15) Dishwashing liquids are examples of		
A) Soaps	B) anionic detergents	
C) cationic detergents	D) non-ionic detergents	
16) What is the use of this adjuments and in		
16) What is the use of tri sodium phosphate inA) To make the soap act rapidly		
	B) To make it lather	
C) To prevent rapid drying	D) For good odour	
17) Synthetic detergents are better than soaps		
a) Synthetic detergent work both in soft water	and hard water	
b) Soaps works both in soft water and hard wat		
c) Synthetic detergents works only in hard water		
d) Soaps works only in hard water		
18) Which of the following is an example of nor	-ionic detergent	
a) Ammonium chloride	b) Sodium salts of alkyl sulphates	
c) Sodium salts of alkyl benzene sulphonic acids	d) Polyether	
19) The % weight of detergent in werking a		
19) The % weight of detergent in washing powe a) 5-10 b) 50-70	-	
a) 5-10 b) 50-70) 15-0 d) 30-45	
20) If the carbon chain is linear the correspondi	g detergent will be	
a) Soft and non-biodegradable	b) Soft and biodegradable	
c) Hard and biodegradable) Hard and non-biodegradable	
	1	
	/ FALSE	
21. Manufactures of household cleaners are requ	ired to list all ingredients of their prod	ucts. T/False
22. Labels of all home and garden products must present and the amount of each. T/False	be precise, showing exactly what subs	tances are
23. Household products must be tested for their	ong-term health efforts bofore boin-	
	sing servir inclutin energy belove being	

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Placed on the market. **T/False**

24. Products placed on the market are not guaranteed to be safe. True/F

25. "Active" ingredients make up the major portion of a product. T/False

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY JEBE (CB2)

		Marks obtained
	QUESTION PAPER	MARKS : 50
1. Which of the following causes s		
a) sodium carbonate	(sodium ros	sinate
c) sodium silicate	d) borax	
2. What is the use of tri sodium ph	osphate in soap powder?	8
a) to make the soap act rapidly	b) to make it l	lather
c) to prevent rapid drying	d) for good ad	lour
3. Identify the cationic detergent f	rom the following	
a) cetyltrimethyl ammonium brom	2020/2011 2020 2020 2020 2020 2020 2020	ecyl sulphate
c) Penta erythritol monosterate	d) sodium laur	아이는 잘 쉬는 것 같아요. 아이는 것이 같아요. 아이는 것이 같아요. 말 것이 같아요. 말 것이 같아요. 말 것이 같아요. 말 것이 같아요. 아이는 것이 ? 아이는 것이 같아요. 아이는 것이 않는 것이 같아요. 아이는 것이 않는 것이 ? 아이는 것이 않는 것이 같아요. 아이는 것이 않는 않는 것이 않는 않는 것이 않는 않는 것이 않는 않는 것이 않는 것이 않는 것이 않는 것이 않는 않는 것이 않는 않 것이 않는 것이 않는 않는 것이 않는
4. Which of these are household p	oisons?	
a) toilet bowl cleaner	b) alcoholic dr	rinks
c) cigarettes	d) all the abo	
5. The best way to handle a house	hold cleaner is to	
al read the label	b) use rubber	aloves
c) keep a window open	d) none of the	
6. What's an indication that you sh	ould stop using a chemical?	
a) Yourfeel dizzy	b) you feel nar	useated
c) You develop a headache	d) any of the a	
7. Which of the following compou	nd cannot remove grease from the	clothes.
A) Gasoline	B) potassium (
C) Soap	Dipotassium	STATISTICS STATES STATES
8 which of the following is an ordin	nary soap?	~
Ar Sodium stearate	B) calcium ste	arate
C) Sodium acetate	D) sodium ber	
9) Soap is a?		
A) Sodium stearate	B) calcium ste	arate
C) Sodium acetate	D) sodium ber	
10) Detergent is	/	
A) Sodium stearate	, Bi sodium alk	yl sulphonate
C) Potassium butyrate	D) Sodium ole	
11) Bath soap is a mixture of		
A) potassium salts of higher fatty a	cids Sodium and Calcium	a calt of higher fattu agide

12) In human bein	g and animals the oil and the fa	ects are hydrolysed by which enzymes en	zymes
A) diastase	51 	B) zymase	
CE) Lipase		D) None	
13) The chemical (name of washing soda		
A) Mineral acid		_B) Fatty acid	
C) Lactic acid7		D) Carbonic acid	
14) The process of	f manufacturing of soap is called	i _ /	
A) lon exchange		B) Allocation	
C Saponification		D) Steam distillation	
15) Dishwashing li	iquids are examples of	× 1	
A) Soaps		Branionic detergents 💛	
C) cationic deterge	ents	D) non-ionic detergents	1
16) What is the us	se of tri sodium phosphate in so	ap powders?	
A) To make the so	pap act rapidly	B) To make it lather	
C) To prevent rapi	id drying	D) For good odour	
17) Synthetic dete	ergents are better than soaps		
a) Synthetic deter	rgent work both in soft water a	nd hard water	
 b) Soaps works bo 	oth in soft water and hard water		
c) Synthetic deter	gents works only in hard water		
d) Soaps works on	ily in hard water		
18) Which of the f	ollowing is an example of non-i	onic detergent	
a) Ammonium chl	aride b) Sodium salts of alkyl sulphates	
c) Sodium salts of	alkyl benzene sulphonic acids	d) Polyether	
19) The % weight	of detergent in washing powder	ris	
a) 5-10	b) 50-70	15-0 d) 30-45	
20) If the carbon c	hain is linear the corresponding	detergent will be	
al Soft and non-bi) Soft and biodegradable 🛛 🗡 😕	
(Hard and biode;	gradable d)	Hard and non-biodegradable	
	TRUE /	FALSE	~
21. Manufactures	of household cleaners are requir	red to list all ingredients of their products	T/False
	me and garden products must b nount of each. T/False	e precise, showing exactly what substanc	es are
23. Household pro Placed on the mark		ng-term health effects before being	
and conclude man	Net Tyronse		

24. Products placed on the market are not guaranteed to be safe.

True/F T/False

25. "Active" ingredients make up the major portion of a product. T/

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

Name-B. Mohalatshmi	Class- Ind bSc (MPC) Marks obtained 38
QUES	TION PAPER MARKS : 50
1. Which of the following causes soap to	
a) sodium carbonate	b) sodium rosipate
c) sodium silicate	d) borax
2. What is the use of tri sodium phosphat	te in soap powder?
 a) to make the soap act rapidly 	b) to make it lather
c) to prevent rapid drying	d) for good odour
3. Identify the cationic detergent from th	e following
a) cetyltrimethyl ammonium bromide	.b) Sonam dodecyl suiphate
c) Penta erythritol monosterate	d) sodium lauryl sulphate
4. Which of these are household poisons?	
a) toilet bowl cleaner	b) alcoholic drinks
c) cigarettes	d) all the above
5. The best way to handle a household cle	aner is to
.a) read the label	b) use rubber gloves
c) keep a window open	d) none of the above
6. What's an indication that you should st	op using a chemical?
a) You feel dizzy	b) you feel nauseated
.c) You develop a headache	d) any of the above
7. Which of the following compound cann	ot remove grease from the clothes.
A) Gasoline	 B) potassium palmitate
C) Soap	D} potassium pentanoate
8 which of the following is an ordinary soa	ip?
A) Sodium stearate	B) calcium stearate
C) Sodium acetate	DJ sodium benzoate
9) Soap is a?	
,A) Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
10) Detergent is	
A) Södium stearate	-8) sodium alkyl sulphonate
C) Potassium butyrate	D) Sodium oleate.
11) Bath soap is a mixture of	and the second se
A) potassium salts of higher fatty acids	B) Sodium and Calcium salt of higher fatty acids
C) potassium permit 8 and sodium stearate	D) sodium Salsa higher fatty acids

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12) In human being and animals th	ne oil and the facts are hydrolysed by which enzymes enzymes
A) diastase	B) zymase
C) Lipase	D) None
· · · · /	
13) The chemical name of washing	(soda
A) Mineral acid	B) Fatty acid
C) Lactic acid7	D) Carbonic acid
14) The process of manufacturing	of soap is called
A) Ion exchange	B) Allocation
_C} Saponification	D) Steam distillation
15) Dishwashing liquids are examp	ples of
A) Soaps	B) anionic detergents
C) cationic detergents	,D) non-ionic detergents
16) What is the use of tri sodium	phosphate in soap powders?
A) To make the soap act rapidly	8) To make it lather
() To prevent rapid drying	D) For good odour
17) Synthetic detergents are bette	er than soaps
a) Synthetic detergent work both	in soft water and hard water
(b) Soaps works both in soft water	and hard water
c) Synthetic detergents works only	y in hard water
d) Soaps works only in hard water	
18) Which of the following is an ex	지수는 것이 집 것이다. 이 것이 같은 것이 같은 것이 같이 가지 않는 것이 같이 있다. 것이 같은 것이 같이
a) Ammonium chloride	 b) Sodium salts of alkyl sulphates
c) Sodium salts of alkyl benzene su	uphonic acidsd) Polyether
19) The % weight of detergent in a	washing powder is
a) 5-10 b) 50-70	c) 15-0 d) 30-45
20) If the carbon chain is linear th	e corresponding detergent will be
 a) Soft and non-biodegradable 	 b) Soft and biodegradable
c) Hard and biodegradable	d) Hard and non-biodegradable
	TRUE / FALSE
21. Manufactures of household cle	aners are required to list all ingredients of their products. T/False
22. Labels of all home and garden	products must be precise, showing exactly what substances are
present and the amount of each. T	/False

23. Household products must be tested for their long-term health effects before being Placed on the market. **T/Faise**

24. Products placed on the market are not guaranteed to be safe.

True/F

25. "Active" ingredients make up the major portion of a product. T/False.

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

	1	D	1
Name-	UT.	Isa	DW
			1

Class- II BSL HPL

Marks obtained-

QUESTION PAPER

MARKS: 50

- 1. Which of the following causes soap to lather. a) sodium carbonate
- c) sodium silicate

6) sodium rosinate d) borax

2. What is the use of tri sodium phosphate in soap powder? (a) to make the soap act rapidly c) to prevent rapid drying

b) to make it lather d) for good adour

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

b) alcoholic drinks.

d) all the above

3. Identify the cationic detergent from the following a) cetyltrimethyl ammonium bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

- a) toilet bowl cleaner
- c) cigarettes

5. The best way to handle a household cleaner is to (a) read the label

keep a window open

6. What's an indication that you should stop using a chemical? a) You feel dizzy c) You develop a headache

b) you feel nauseated

b) use rubber gloves

d) none of the above

d) any of the above

7. Which of the following compound cannot remove grease from the clothes. A) Gasoline B) potassium palmitate C) Soap

D) potassium pentanoate

8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate

9) Soap is a? A Sodium stearate C) Sodium acetate

10) Detergent is A) Sodium stearate

- C) Potassium butyrate
- 11) Bath soap is a mixture of

A potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate B) calcium stearate D) sodium benzoate

B) calcium stearate D) sodium benzoate

B) sodium alkyl sulphonate D) Sodium pleate.

B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human b	eing and animals the oil	and the facts are hydrolysed by which enzymes enzymes
A) diestas		B) zymase
ELipase	000	D) None
13) The chemic	al name of washing sod	a 1
A) Mineral acid		B) Fatty acid
C) Lactic acid7	1.34	D) Carbonic acid
14) The proces	s of manufacturing of so	ap is called
A) Jon exchange	6	B) Allocation
C) Saponificatio	n	D) Steam distillation
15) Dishwashin	g liquids are examples o	d
A) Soaps		B) apionic detergents
C) cationic dete	rgents	-D) non-ionic detergents
16) What is the	e use of tri sodium phos	phate in soap powders?
	e soap act rapidly	B) To make it lather
ro prevent r	apid drying	D) For good odour
a) Synthetic de b) Soaps works c) Synthetic def	etergents are better than tergent work both in solution both in soft water and h tergents works only in ha only in hard water	ft water and hard water ard water
of posps works	only in hard water	
		e of non-ionic detergent
a) Ammonium (b) Sodium salts of alkyl sulphates
c) Sodium salts	of alkyl benzene sulphor	hic acidsdt Polyether
	nt of detergent in washin	ng powder is
al 5-10	b) 50-70	c) 15-0 d) 30-45
		esponding detergent will be
a) Soft and non-	2000 - 100 -	b) Soft and biodegradable
✓) Hard and bio	degradable	d) Hard and non-biodegradable
		TRUE / FALSE
21. Manufacture	es of household cleaners	are required to list all ingredients of their products. T/False
22. Labels of all I present and the	home and garden produc amount of each. T/False	cts must be precise, showing exactly what substances are

23. Household products must be tested for their long-term health effects before being Placed on the market.

24. Products placed on the market are not guaranteed to be safe. True/F

25. "Active" ingredients make up the major portion of a product. T/False

DEPAI	COLLEGE (W), RAJAMAHENDRAVARAM RTMENTOF CHEMISTRY
	ADDED COURSE, (2022-23) HOLD CHEMISTRY
	and the second
Name G. U.B. Maga Souder?	Class- IBSL (HPC) Marks obtained- 36
QUESTI	ON PAPER MARKS : 50
1. Which of the following causes soap to la	
a) sodium carbonate	b) sodium rosinate /
Sodium silicate	d) borax
2. What is the use of tri sodium phosphate	in soap powder?
 a) to make the soap act rapidly 	b) to make it lather
c) to prevent rapid drying	lef for good adour
3. Identify the cationic detergent from the f	following
a) cetyltrimethyl ammonium bromide	Jonam dodecyl sulphate
c) Penta erythritol monosterate	d) sodium lauryl sulphate
4. Which of these are household poisons?	
a) toilet bowl cleaner	b) alcoholic drinks
c) cigarettes	et all the above
5. The best way to handle a household clear	ner is to
a) read the label	b) use rubber gloves
c) keep a window open	d) none of the above
6. What's an indication that you should stop	using a chemical?
a) You feel dizzy	b) you feel nauseated
You develop a headache	d) any of the above
7. Which of the following compound cannot	remove grease from the clother
A) Gasoline	B) potassium palmitate
C) Soap	D) potassium pentanoate
8 which of the following is an ordinary soap	,
A) Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
9).Soap is a?	
A) Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
10) Detergent is	
A) Sodium stearate	-B) sodium alkyl sulphonate
C) Potassium butyrate	D) Sodium oleate.
11) Bath soap is a mixture of	
A) potassium salts of higher fatty acids	B) Sodium and Calcium salt of higher fatty acids
C) potassium permit 8 and sodium stearate	D) sodium Salsa higher fatty acids

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Aldiastase	B) zymase
(C) Lipase	D) None
13) The chemical name of washing soda	
	La contra la contra de la contr
A) Mineral acid	B) Fatty acid
C) Lactic acid7	D) Carbonic acid
14) The process of manufacturing of soap is	scalled
A) Ion exchange	B) Allocation
C) Saponification	D) Steam distillation
/	
15) Dishwashing liquids are examples of	
A) Soaps	B) anionic detergents
C) cationic detergents	D) non-ionic detergents
	- /
16) What is the use of tri sodium phosphat	e in soap powders?
A) To make the soap act rapidly	B) To make it lather
C) To prevent rapid drying	D) For good odour
-	
17) Synthetic detergents are better than so	· · · · · · · · · · · · · · · · · · ·
a) Synthetic detergent work both in soft w	
b) Soaps works both in soft water and hard	
c) Synthetic detergents works only in hard v	water
d) Soaps works only in hard water	
18) Which of the following is an example of	f non-ionic-detergent
 Which of the following is an example of a) Ammonium chloride 	
a) Ammonium chloride	b) Sodium salts of alkyl sulphates
	b) Sodium salts of alkyl sulphates
a) Ammonium chloride	b) Sodium salts of alkyl sulphates cids d) Polyether
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 	b) Sodium salts of alkyl sulphates cids d) Polyether
a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 onding detergent will be
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 conding detergent will be b) Soft and biodegradable
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 onding detergent will be
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 conding detergent will be b) Soft and biodegradable
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 b) Soft and biodegradable d) Hard and non-biodegradable
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 conding detergent will be b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether b) Soft and biodegradable b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False must be precise, showing exactly what substances are
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether b) Soft and biodegradable b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False must be precise, showing exactly what substances are
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether bowder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False must be precise, showing exactly what substances are heir long-term health effects before being
 a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of the co	b) Sodium salts of alkyl sulphates acids d) Polyether b) Soft and biodegradable b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False must be precise, showing exactly what substances are heir long-term health effects before being uaranteed to be safe, True/F

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

QUESTIC	ON PAPER MARKS : 50
1. Which of the following causes soap to lat	The second se
a) sodium carbonate	t b) sodium rosinate
c) sodium silicate	d) borax
2. What is the use of tri sodium phosphate i	in soap powder?
(a) to make the soap act rapidly	b) to make it lather
c) to prevent rapid drying	d) for good odour
3. Identify the cationic detergent from the f	ollowing
a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulphate
c) Penta erythritol monosterate	d) sodium lauryl sulphate
4. Which of these are household poisons?	
 a) toilet bowl cleaner 	b) alcoholic drinks
c) cigarettes	dfall the above
5. The best way to handle a household clear	ner is to
ca) read the label	b) use rubber gloves
c) keep a window open	d) none of the above
6. What's an indication that you should stop	using a chemical?
a) You feel dizzy	b) you feel nauseated
ی You develop a headache	d) any of the above
7. Which of the following compound cannot	remove grease from the clothes.
A) Gasoline	B) potassium palmitate
C) Soap	D) potassium pentanoate
8 which of the following is an ordinary soap	?
A) Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
9) Soap is a?	
A/Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
10) Detergent is	
A) Sodium stearate	, B) sodium alkyl sulphonate
C) Potassium butyrate	D) Sodium oleate.
11) Bath soap is a mixture of	
A) potassium salts of higher fatty acids	B) Sodium and Calcium salt of higher fatty acids
C) potassium permit 8 and sodium stearate	D) sodium Salsa higher fatty acids

12) In human t	eing and animals the oil and t	he facts are hy	drolysec	by which	enzymes e	enzymes
A) drastas	e	B) zyn	nase			
Clipase		D) No	ne	-		
			1		1	
13) The chemic	cal name of washing soda	/				
A) Mineral acid	5		atty acid			
C) Lactic acid7		D) C	arbonic a	acid		
14) The proces	s of manufacturing of soap is c	alled				
A) lon exchange	P	B) A	location	i 🧠	1	
C) Saponification	on	D) S	steam dis	stillation		
15) Dishwashir	ng liquids are examples of					
A) Soaps	6 indensi are examples of	— B)a	nionicida	etergents	1	
C) cationic dete	reents		A 1574 1	t detergen	te.	
o) contracto		Con	ion-ionic	. uetergen	1.5	4
16) What is th	e use of tri sodium phosphate	in soap powde	rs?		1	
	e soap act rapidly	- CONC UP32, 14	o make il	t lather	× .	
C) To prevent (10.00	or good			
					21	
	etergents are better than soap					
	etergent work both in soft wat		ater		0	
이 같은 것은 것을 같은 것이 많을까?	both in soft water and hard w					
	tergents works only in hard wa	ter				
d) Soaps works	only in hard water					
19) Which of th	e fellewing is an available of a		and a state of the			1
a) Ammonium	e following is an example of n			le de la de la com	00	
24.28.12.12.12.12.12.12.12		b) Sodium s			es	
cj sourom sans	of alkyl benzene sulphonic aci		olyether			
19) The % weig	ht of detergent in washing pov	vder is			X	
a) 5-10	_ b).80-70	c) 15-0	d) 30	0-45	1	
	<u> </u>				1	
	n chain is linear the correspon	ding detergent	t will be			
	i-biodegradable	b) Soft and I	C			
c) Hard and bio	degradable	d) Hard and	non-biod	degradable	e	
	TR	UE / FALSE				
21. Manufactur	es of household cleaners are re	quired to list a	II ingred	ients of th	eir product	s. T/False
	home and garden products mu amount of each. T/False	ist be precise,	showing	exactly wh	iat substan	ces are
23. Household p Placed on the m	products must be tested for the narket. T/Fallse	ir long term he	alth effe	ects before	being	-
24. Products pla	iced on the market are not gua	ranteed to be s	safe.	True/F		
25. "Active" ing	redients make up the major po	rtion of a prod	uct. T/	Fallse	8	

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

Name M. Ramulamma	Class- I B-SC (M.P.C) Marks obtained-
QUESTI	ON PAPER MARKS : 50
1. Which of the following causes soap to la	ither.
a) sodium carbonate	b) sodium rosinate
c) sodium silicate	d) borax
2. What is the use of tri sodium phosphate	in soap powder?
.a) to make the soap act rapidly	b) to make it lather
c) to prevent rapid drying	d) for good odour
3. Identify the cationic detergent from the	following
.a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulphate
c) Penta erythritol monosterate	d) sodium lauryl sulphate
4. Which of these are household poisons?	
a) toilet bowl cleaner	b) alcoholic drinks
c) cigarettes	d) all the above
5. The best way to handle a household clea	ner is to
a) read the label	b) use rubber gloves
c) keep a window open	d) none of the above
6. What's an indication that you should stop	p using a chemical?
a) You feel dizzy	b) you feel nauseated
c) You develop a headache	d) any of the above
7. Which of the following compound cannot	t remove grease from the clothes.
A) Gasoline	B) potąssium palmitate
C) Soap	D) potasslum pentanoate
8 which of the following is an ordinary soap	?
A) Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
9) Soap is a?	~
A) Sodium stearate	Concentrate
C) Sodium acetate	D) sodium benzoate
10) Detergent is	
A) Sudium stearate	B+sodium alkyl sulphonate
C) Potassium butyrate	D) Sodium oleate.
11) Bath soap is a mixture of	
A) potassium salts of higher fatty acids	B) Sodium and Calcium salt of higher fatty acids
Shpotassium permit 8 and sodium stearate	D) sodium Salsa higher fatty acids
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C) Lipase D) None 13) The chemical name of washing soda B) Fatty acid A) Mineral acid D) Carbonic acid (Cactic acid? D) Carbonic acid 14) The process of manufacturing of soap is called B) Allocation (A) Ion exchange B) Allocation (C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of	A) diasta:		il and the facts are hydrolysed by which enzymes enzymes
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14) The process of manufacturing of soap is called A) lon exchange B) Allocation (c) Saponification D) Steam distillation 15) Dishwashing liquids are examples of	A) Mineral aci	d	B) Fatty acid 🛛 🐱
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C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of	14) The proce	ss of manufacturing of so	pap is called
 15) Dishwashing liquids are examples of	A) Ion exchange	ze –	B) Allocation
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SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23)

BSC (MPC)

MARKS : 50

SUBJECT : HOUSE HOLD CHEMISTRY

QUESTION PAPER

1. Which of the following causes soap to lather.

a) sodium carbonate

c) sodium silicate

b) sodium rosinate d) borax

2. What is the use of tri sodium phosphate in soap powder?

- a) to make the soap act rapidly
- c) to prevent rapid drying

b) to make it lather d) for good odour

3. Identify the cationic detergent from the following a) cetyltrimethyl ammonium bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

d) sodium lauryl sulphate.

b) Sonam dodecyl sulphate

 b) alcoholic drinks d) all the above

5. The best way to handle a household cleaner is to a) read the label c) keep a window open

b) use rubber gloves d) none of the above

6. What's an indication that you should stop using a chemical? a) You feel dizzy b) you feel nauseated (c) You develop a headache

7. Which of the following compound cannot remove grease from the clothes. A) Gasoline B) potassium palmitate C) Soap

8 which of the following is an ordinary soap? A Sodium stearate C) Sodium acetate

9) Soap is a? A) Sodium stearate C) Sodium acetate

10) Detergent is A) Sodium stearate C) Potassium butyrate

11) Bath soap is a mixture of A potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate D) potassium pentanoate

B) calcium stearate D) sodium benzoate

 B) calcium stearate D) sodium benzoate

Brodium alkyl sulphonate D) Sodium cleate.

B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes A) diastase B) zymase Lipase D) None

d) any of the above

13) The chemical name of washing soda
A) Mineral acid
C) Lactic acid7

B) Fatty acid ()) Carbonic acid

B) Allocation

14) The process of manufacturing of soap is called A) Ion exchange C) Saponification

15) Dishwashing liquids are examples of _____
A) Soaps
C) cationic detergents

B) anjonic detergents

D) Steam distillation

Di non-ionic detergents

 16) What is the use of tri sodium phosphate in soap powders?

 A) To make the soap act rapidly
 B) To make it lather

 C) To prevent rapid drying
 D) For good odour

17) Synthetic detergents are better than soaps

Synthetic detergent work both in soft water and hard water

b) Soaps works both in soft water and hard water

() Synthetic detergents works only in hard water

d) Soaps works only in hard water

18) Which of the following is an example of non-ionic detergent

a) Ammonium chloride b) Sodium salts of a/kyl sulphates c) Sodium salts of a/kyl benzene sulphonic acids d) Polyether

19) The % weight of detergent in washing nounder is

	and decengent in washing	ng powder is	
a) 5-10	50-70	c) 15-0	d) 30-45

20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft-and biodegradable c) Hard and biodegradable d) Hard and non-biodegradable

TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe.

True/ T/False

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

HOLD CHEMISTRY
Class- II Bic CBt Marks obtained- 40
ON PAPER MARKS : 50
her.
b) sodium rosinate
d) borax
n soap powder?
b) to make it lather
d) for good adour
ollowing
b) Sonam dodecyl sulphate
d) sodium lauryl sulphate
b) alcoholic drinks
-d) all the above
er is to
b) use rubber gloves
d) none of the above
using a chemical?
b) you feel nauseated
d) any of the above
remove grease from the clothes.
-B) potassium palmitate
D) potassium pentanoate
B) calcium stearate
D) sodium benzoate
B) calcium stearate
D) sodium benzoate
B) sodium alkyl sulphonate
D) Sodium oleate.
B) Sodium and Calcium salt of higher fatty acids
D) sodium Salsa higher fatty acids

A) diastase	B) zymase		
C) Lipase	D) None		
13) The chemical name of washing soda			
A) Mineral acid	B) Fatty acid		
el Lactic acid7 🔑	D) Carbonic acid		
14) The process of manufacturing of soa	p is called		
A) Ion exchange	B) Allocation		
L) Saponification	D) Steam distillation		
15) Dishwashing liquids are examples of			
A) Soaps	B) anionic detergents		
C) cationic detergents	D) non-ionic detergents		
16) What is the use of tri sodium phosp	Tate in soap powders?		
A) To make the soap act rapidly	B) To make it lather		
C) To prevent rapid drying	D) For good odour		
17) Synthetic detergents are better than	soaps		
a) Synthetic detergent work both in soft			
b) Soaps works both in soft water and ha			
c) Synthetic detergents works only in har	알려, 있다. 이곳 안		
d) Soaps works only in hard water			
18) Which of the following is an example	of non-ionic detergent		
Ammonium chloride	b) Sodium salts of alkyl sulphates		
c) Sodium salts of alkyl benzene sulphoni			
19) The % weight of detergent in washin	g powder is-		
a) 5-10 b) 50-70	-c) 15-0 d) 30-45		
20) If the carbon chain is linear the corre	sponding detergent will be		
a) Soft and non-biodegradable	b) Soft and biodegradable		
c) Hard and biodegradable	d) Hard and non-biodegradable		
	TRUE / FALSE		

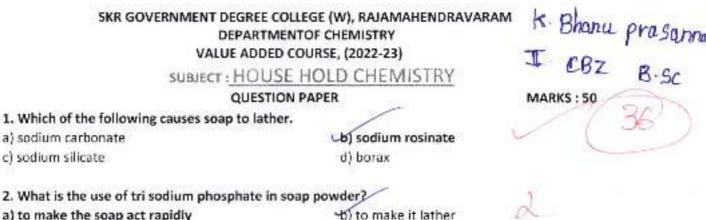
22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

True/F/

23. Household products must be tested for their long-term health effects before being Placed on the market. **T/False**

24. Products placed on the market are not guaranteed to be safe.

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23)



a) to make the soap act rapidly

c) to prevent rapid drying

a) sodium carbonate

c) sodium silicate

d) for good odour

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

3. Identify the cationic detergent from the following a) cetyltrimethyl ammonium bromide c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

5. The best way to handle a household cleaner is to a) read the label

c) keep a window open

b) use rubber gloves at none of the above

b) alcoholic drinks d) all the above

6. What's an indication that you should stop using a chemical? a) You feel dizzy b) you feel nauseated c) You develop a headache d) any of the above

7. Which of the following compound cannot remove grease from the clothes. A) Gasoline B) potassium palmitate C) Soap D) potassium pentanoate

8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate

9) Soap is a? M Sodium stearate C) Sodium acetate

10) Detergent is A) Sodium stearate C) Potassium butyrate B) calcium stearate D) sodium benzoate

> B) calcium stearate D) sodium benzoate

B) sodium alkyl sulphonate D) Sodium oleate.

11) Bath soap is a mixture of A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate.

B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes A) diastase B) zymase C) Lipase D) None

13) The chemical name of washing soda A) Mineral acid C) Lactic acid7

14) The process of manufacturing of soap is called Al log exchange (Saponification

15) Dishwashing liquids are examples of A) Soaps C) cationic detergents

16) What is the use of tri sodium phosphate in soap powders? A) To make the soap act rapidly C) To prevent rapid drying

17) Synthetic detergents are better than soaps a)-Synthetic detergent work both in soft water and hard water b) Soaps works both in soft water and hard water

c) Synthetic detergents works only in hard water

d) Soaps works only in hard water

18) Which of the following is an example of non-ionic detergent

a) Ammonium chloride	b) Sodium salts of alkyl sulphates
c) Sodium salts of alkyl benzene sulphonic acids	d) Polyether

19) The % weight of detergent in washing powder is 1 215-10 b) 50-70 c) 15-0 d) 30-45

20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft and biodegradable

c) Hard and biodegradable d) Hard and non-biodegradable

TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products prust be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe. True/F

25. "Active" ingredients make up the major portion of a product. T/False

B) Fatty acid D) Carbonic acid

B) Allocation D) Steam distillation

B) anionic detergents D) non-ionic detergents

B) To make it lather D) For good odour





SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM K. MYUGHULA DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) SUBJECT : HOUSE HOLD CHEMISTRY

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ou	EST	ION	PA	PER	

1. Which of the following causes soap to lather.

a) sodium carbonate

c) sodium silicate

d) sodium rosinate

MARKS : 50

2. What is the use of tri sodium phosphate in soap powder? at to make the soap act rapidly b) to make

c) to prevent capid drying

b) to make it lather
 d) for good odour

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

3. Identify the cationic detergent from the following

a) cetyltrimethyl ammonlum bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

b) alcoholic drinks d) all the above

 The best way to handle a household cleaner is to a) read the label

c) keep a window open

b) use rubber gloves d) none of the above

6. What's an indication that you should stop using a chemical? a) You feel dizzy b) you feel nauseated c) You develop a headache d) any of the above

7. Which of the following compound cannot remove grease from the clothes. A) Gasoline C) Soap D) potassium pentanoa

8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate

9) Soap is a? Al Sodium stearate C) Sodium acetate

10) Detergent is_____ A) Sodium stearate C) Potassium butyrate D) potassium pentanoate

B) calcium stearate
 D) sodium benzoate

B) calcium stearate
 D) sodium benzoate

Bl sodium alkyl sulphonate D) Sodium oleate.

11) Bath soap is a mixture of
 A) potassium salts of higher fatty acids
 C) potassium permit 8 and sodium stearate

B) Sodium and Calcium salt of higher fatty acids
 D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes A) diastase B) zymase C) Lipase D) None 13) The chemical name of washing soda B) Fatty acid A) Mineral acid D) Carbonic acid C) Lactic acid7 14) The process of manufacturing of soap is called B) Allocation A) Ion exchange D) Steam distillation C) Saponification 15) Dishwashing liquids are examples of B) anionic detergents. A) Soaps D) non-ionic detergents C) cationic detergents 16) What is the use of tri sodium phosphate in soap powders? B) To make it lather A) To make the soap act rapidly D) For good odour CPTo prevent rapid drying 17) Synthetic detergents are better than soaps a) Synthetic detergent work both in soft water and hard water b) Soaps works both in soft water and hard water c) Synthetic detergents works only in hard water d) Soaps works only in hard water 18) Which of the following is an example of non-ionic detergent b) Sodium salts of alkyl sulphates a) Ammonium chloride d) Polyether c) Sodium salts of alkyl benzene sulphonic acids 19) The % weight of detergent in washing powder is et 15-0 b) 50-70 d) 30-45 a) 5-10 20) If the carbon chain is linear the corresponding detergent will be b) Soft and biodegradable a) Soft and non-biodegradable d) Hard and non-blodegradable c) Hard and biodegradable TRUE / FALSE 21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. *//False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/Faise

24. Products placed on the market are not guaranteed to be safe. Jrue/F

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		K. kame swani
DEI	GREE COLLEGE (W), RAJAMAHENDRA PARTMENTOF CHEMISTRY ADDED COURSE, (2022-23)	R.B.Z
	HOUSE HOLD CHEMISTRY	TE B.SC C.BZ
5-01 a 20 A 4-1 Y 20 A 1 A 4-2	QUESTION PAPER	
1. Which of the following causes soap		MARKS : 50 (44)
a) sodium carbonate	b) sodium rosinate	\bigcirc
c) sodium silicate	d) borax	
2. What is the use of tri sodium phosph	nate in soap powder?	
a) to make the soap act rapidly	b) to make it lather	
c) to prevent rapid drying 🧹	d) for good odour	
3. Identify the cationic detergent from	the following	
a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sul	phate
c) Penta erythritor monosterate	d) sodium lauryl sulph	
4. Which of these are household poisor	15?	
a) toilet bowl cleaner	b) alcoholic drinks	
c) cigarettes	d) all the above	
5. The best way to handle a household	cleaner is to	
a) read the label	b) use rubber gloves	
c) keep a window open	d) none of the above	
6. What's an indication that you should	stop using a chemical?	
a) You feel dizzy	b) you feel nauseated	
c) You develop a headache	d) any of the above	
7. Which of the following compound ca	nnot remove grease from the clothes.	÷
A) Gasoline	B) potassium palmitat	
C) Soap	D) potassium pentano	and a second sec
8 which of the following is an ordinary s	ioap?	
A) Sodium stearate	B) calcium stearate	
C) Sodium acetate	D) sodium benzoate	
9) Soap is a?		

A) Sodium stearate C) Sodium acetate

2

10) Detergent is_

D) sodium benzoate

B) calcium stearate

A) Sodium stearate C) Potassium butyrate B) sodium alkyl sulphonate D) Sodium oleate.

11) Bath soap is a mixture of AT potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate

B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes A) diastase B} zymase C) Lipase D) None

13) The chemical name of washing soda A) Mineral acid Fatty acid D) Carbonic acid C) Lactic acid7 14) The process of manufacturing of soap is called A) Ion exchange BI Allocation C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of Al Soaps B) anionic detergents. C) cationic detergents D) non-ionic detergents 16) What is the use of tri sodium phosphate in soap powders? A) To make the soap act rapidly B) To make it lather D) For good odour C) To prevent rapid drying 17) Synthetic detergents are better than soaps a) Synthetic detergent work both in soft water and hard water b) Soaps works both in soft water and hard water c) Synthetic detergents works only in hard water d) Soaps works only in hard water 18) Which of the following is an example of non-ionic detergent a) Ammonium chloride b) Sodium salts of alkyl sulphates d) Polyether c) Sodium salts of alkyl benzene sulphonic acids 19) The % weight of detergent in washing powder is c) 15-0 a) 5-10 b) 50-70 d) 30-45 20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft and biodegradable d) Hard and non-biodegradable c) Hard and biodegradable TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe. True/F

K, Naga Lakshmi SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM I B-SC CBZ DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) SUBJECT : HOUSE HOLD CHEMISTRY

οU	ESTI	ON	PAP	ER
	ALC: 1			_

1. Which of the following causes soap to lather.

a) sodium carbonate

sodium silicate

b) sodium rosinate d) borax

2. What is the use of tri sodium phosphate in soap powder?

a) to make the soap act rapidly

ct to prevent rapid drying

b) to make it lather d) for good adour

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

3. Identify the cationic detergent from the following a) cetyltrimethyl ammonium bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

5. The best way to handle a household cleaner is to a) read the label

c) keep a window open

b) use rubber gloves d) none of the above

b) aleoholic drinks

all the above

6. What's an indication that you should stop using a chemical? b) you feel nauseated a) You feel dizzy d) any of the above , of You develop a headache

Which of the following compound cannot remove grease from the clothes. B) potassium palmitate A) Gasoline D potassium pentanoate C) Soap

8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate

9) Soap is a? A) Sodium stearate Ci Sodium acetate

10) Detergent is_ A) Sodium stearate C) Potassium butyrate B) calcium stearate D) sodium benzoate

B) sodium alkyl sulphonate D) Sodium oleate.

11) Bath soap is a mixture of A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate

Sodium and Calcium salt of higher fatty acid D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes B) zymase A) eliastase D) None C) Lipase

S calcium stearate D) sodium benzoate

MARKS: 50

13) The chemical name of washing soda A) Mineral acid C) Lactic acid7

14) The process of manufacturing of soap is called A) logrexchange C) Saponification

15) Dishwashing liquids are examples of A) Soaps C) cationic detergents

B) Fatty acid D) Carbonic acid

BI Allocation D) Steam distillation

B) anionic detergents D) non-ionic detergents

16) What is the use of tri sodium phosphate in soap powders? A To make the soap act rapidly B) To make it lather

C) To prevent rapid drying

D) For good odour

d) 30-45

17) Synthetic detergents are better than soaps

a) Synthetic detergent work both in soft water and hard water

الله) Soaps works both in soft water and hard water

c) Synthetic detergents works only in hard water

d) Soaps works only in hard water

18) Which of the following is an example of non-ionic detergent a) Ammonium chloride b) Sodium salts of alkyl sulphates d Polvether c) Sodium salts of alkyl benzene sulphonic acids.

19) The % weight of detergent in washing powder is c) 15-0 a) 5-10 b) 50-70

20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft and biodegradable Hard and biodegradable d) Hard and non-biodegradable

TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe.

True/F

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23)

SUBJECT : HOUSE HOLD CHEMISTRY

OUESTION PAPER

1. Which of the following causes soap to lather.

a) sodium carbonate

c) sodium silicate

b) sodium rosinate d) borax

2. What is the use of tri sodium phosphate in soap powder?

a) to make the soap act rapidly

c) to prevent rapid drying

/b) to make it lather d) for good odour

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

3. Identify the cationic detergent from the following

a) cetyltrimethyl ammonium bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

5. The best way to handle a household cleaner is to

a) read the label

c) keep a window open

b) alcoholic drinks

d) all the above

b) use rubber gloves d) none of the above

B) calcium stearate

D) sodium benzoate

B) calcium stearate

D) sodium benzoate

D) Sodium oleate.

6. What's an indication that you should stop using a chemical? b) you feel nauseated a) You feel dizzy d) any of the above.

c) You develop a headache

7. Which of the following compound cannot remove grease from the clothes. B) potassium palmitate A) Gasoline D) potassium pentanoate C) Soap

8 which of the following is an ordinary soap? A) Sodium stearate

C) Sodium acetate

9) Soap is a? A Sodium stearate C) Sodium acetate

10) Detergent is_ A) Sodium stearate C) Potassium butyrate

11) Bath soap is a mixture of

A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate B} Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

B) sodium alkyl sulphonate

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes B) zymase A) diastase D) None C) Lipase

M. Stavah TT BJGCCBZ MARKS: 50

13) The chemical name of washing soda B) Fatty acid A) Mineral acid D) Carbonic acid C) Lactic acid7 14) The process of manufacturing of soap is called B) Allocation A) Ion exchange D) Steam distillation C) Saponification 15) Dishwashing liquids are examples of A) Soaps B) anionic detergents D) non-ionic detergents C) cationic detergents 16) What is the use of tri sodium phosphate in soap powders? A To make the soap act rapidly B) To make it lather C) To prevent rapid drying D) For good adour 17) Synthetic detergents are better than soaps a) Synthetic detergent work both in soft water and hard water b) Soaps works both in soft water and hard water. c) Synthetic detergents works only in hard water d) Soaps works only in hard water 18) Which of the following is an example of non-ionic detergent b) Sodium salts of alkyl sulphates a) Ammonium chloride c) Sodium salts of alkyl benzene sulphonic acids d) Polyether 19) The % weight of detergent in washing powder is b) 50-70 c) 15-0 d) 30-45 a) 5-10 20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft and biodegradable d) Hard and non-biodegradable c) Hard and biodegradable TRUE / FALSE 21. Manufactures of household cleaners are required to list all ingredients of their products. T/False 22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe. True/F

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23)

SUBJECT : HOUSE HOLD CHEMISTRY

QUESTION PAPER

1. Which of the following causes soap to lather.

a) sodium carbonate

c) sodium silicate

b) sodium rosinate d) borax

d) for good odour

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

2. What is the use of tri sodium phosphate in soap powder? b) to make it lather

- a) to make the soap act rapidly
- c) to prevent rapid drying

3. Identify the cationic detergent from the following

- a) cetyltrimethyl ammonium bromide
- c) Penta erythritol monosterate

4. Which of these are household poisons?

- a) toilet bowl cleaner
- c) cigarettes

5. The best way to handle a household cleaner is to

- -a) read the label
 - c) keep a window open

b) use rubber gloves

b) alcoholic drinks.

d) all the above

- d) none of the above
- 6. What's an indication that you should stop using a chemical? b) you feel nauseated a) You feel dizzy d) any of the above c) You develop a headache

7. Which of the following compound cannot remove grease from the clothes. B) potassium palmitate A) Gasoline D) potassium pentanoate C) Soap

8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate

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10) Detergent is_ A) Sodium stearate C) Potassium butyrate B) calcium stearate D) sodium benzoate

B) calcium stearate D) sodium benzoate

Bi sodium alkyl sulphonate D) Sodium oleate.

11) Bath soap is a mixture of a) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate

B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes B) zymase A) diastase D) None C) Lipase

M.d. soha alia II B.SC C.B.Z

13) The chemic	al name of washing soda	a		
A) Mineral acid			atty acid	
C) Lactic acid7			Carbonic acid	
14) The process	s of manufacturing of so	ap is called		
A) Ion exchange	2	B)	Allocation	
() Saponificatio	on	D	Steam distillation	
15) Dishwashin	g liquids are examples o	of		
AJ Soaps	60		anionic detergents	
C) cationic dete	rgents	(م)	non-ionic detergents	
16) What is the	e use of tri sodium phos	phate in soap powd	lers?	
	e soap act rapidly	N	To make it lather	
C) To prevent r	apid drying	D)	For good odour	
17) Synthetic d	etergents are better tha	n soaps		
a) Synthetic de	etergent work both in so	ft water and hard w	vater	
b) Soaps works	both in soft water and h	hard water		
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d) Soaps works	only in hard water			
18) Which of th	e following is an examp	le of non-ionic dete	rgent	
a) Ammonium	chloride	b) Sodium	salts of alkyl sulphates	
c) Sodium salts	of alkyl benzene sulpho	nic acids/	Polyether	
19) The % weig	ht of detergent in washi	ng powder is		
a) 5-10	b) 50-70	g15-0	d) 30-45	
20) If the carbo	n chain is linear the corr	esponding deterge	nt will be	
	-biodegradable		l biodegradable	
c) Hard and bio			d non-biodegradable	
		TRUE / FALSE		
				/

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

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True/F

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) P. hema latha HOUSE HOLD CHEMISTRY

Name-	Class- Marks obtained-
QUESTI	ON PAPER
1. Which of the following causes soap to la	ther MARKS : 50
a) sodium carbonate	
c) sodium silicate	b) sodium rosinate
2. What is the use of tri sodium phosphate i	in soon pourder?
a) to make the soap act rapidly	
C) to prevent rapid drying	b) to make it lather d) for good odour
3. Identify the cationic detergent from the fo	ollowing
a) cetyltrimethyl ammonium bromide	
c) Penta erythritol monosterate	b) Sonam dodecyl sulphate
4. Which of these are household poisons?	
a) toilet bowl cleaner	b) alcoholic drinks
c) cigarettes	d) all the above
5. The best way to handle a household clean	er is to
a) read the label	MAN CONTROL MUSIC CONTROL OF
c/ keep a window open	 b) use rubber gloves d) none of the above
6. What's an Indication that you should stop	uring a described
a) You feel dizzy	
c) You develop a headache	d) any of the above
7. Which of the following compound cannot n	Strain many front in the
A) Gasoline	enove grease from the clothes.
C) Soap	B) potassium palmitate
8 which of the following is an ordinary soap?	
Sodium stearate	B) calcium eta
C) Sodium acetate	B) calcium stearate D) sodium benzoate
)) Soap is a?	
Sodium stearate	
) Sodium acetate	B) calcium stearate
r oodram deetale	D) sodium benzoate
0) Detergent is	
) Sodium stearate	Fronting
) Potassium butyrate	B) sodium alkyl sulphonate
8.0.1.1.1	D) Sodium oleate.

11) Bath soap is a mixture of
 A) potassium salts of higher fatty acids
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B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human b	eing and animals the oi	and the facts are hydrolysed by whi	ich enzymes enzymes
A) diástas	e	B) zymase	
Lipase		D) None	
13) The chemic	al name of washing sod	a /	
A) Mineral acid		B) Fatty acid	~
C) Lactic acid7		D) Carbonic acid	
14) The proces	s of manufacturing of so	an is called	
(A) Ion exchange	장애 집에 집에 걸려 전쟁을 위한 것을 받았다. 구매하는 것을 받았다.	B) Allocation	d
C) Saponificati		D) Steam distillation	
		by occarr obcaration	
15) Dishwashir	ng liquids are examples (of	
-A) Soaps	•	B) anionic detergent	s d-
C) cationic dete	ergents	D) non-ionic deterg	
16) What is th	e use of tri sodium nhos	phate in soap powders?	
	e soap act rapidly	B) To make it lather	
C) To prevent r	1938 9 C S S S S S S S S S S S S S S S S S S	D) For good odour	
1774 - 1775 F OURING STOCK		57101 2000 0000	
17) Synthetic d	letergents are better that	in soaps	
		ft water and hard water	V
	s both in soft water and		
c) Synthetic de	tergents works only in h	ard water	
d) Soaps works	s only in hard water		
18) Which of th	ne following is an examp	le of non-ignic detergent	10
a) Ammonium		 b) Sodium salts of alkyl sulpl 	hates
	of alkyl benzene sulpho		· · · · · · · · · · · · · · · · · · ·
10) The IV			
	ht of detergent in wash		~
a) 5-10	b) 50-70	cc/15-0 d) 30-45	
20) If the carbo	n chain is linear the cor	esponding detergent will be	
a) Soft and nor	n-biodegradable	b) Soft and biodegradable	5/
c) Hard and bic	odegradable	d) Hard and non-biodegrada	ible
		TRUE / FALSE	
21. Manufactur	es of household cleaner	are required to list all ingredients of	their products. T/False
		cts must be precise, showing exactly	
	amount of each. T/Fals		what substances are
23. Household p Placed on the m		for their long-term health effects bef	ore being
24. Products pla	aced on the market are r	of guaranteed to be safe. True/F	~ /

25. "Active" ingredients make up the major portion of a product. T/False

T/False

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

Name-	Class- Marks	obtained-
QUESTI	ON PAPER	MARKS : 50
1. Which of the following causes soap to lat		1101103.30 C
a) sodium carbonate	b) sodium rosinate	har
c) sodium silicate	d) borax 🧹	
2. What is the use of tri sodium phosphate i	in soap powder?	
a) to make the soap act rapidly	b) to make it lather	
c) to prevent rapid drying	d) for good adour	
3. Identify the cationic detergent from the f	ollowing	
a) cetyltrimethyl ammonlum bromide	b) Sonam dodecyl sulphate	
c) Penta erythritol monosterate	d) sodium lauryl sulphate	
4. Which of these are household poisons?	5	
a) toilet bowl cleaner	b) alcoholic drinks	
c) cigarettes	d) all the above	
5. The best way to handle a household clear	ner is to	
a) read the label	b) use rubber gloves	
c) keep a window open	d) none of the above	
6. What's an indication that you should stop	using a chemical?	
a) You feel dizzy	b) you feel nauseated	
c) You develop a headache	d) any of the above	
7. Which of the following compound cannot	remove grease from the clothes.	
A) Gasoline	B) potassium palmitate	
C) Soap	D) potassium pentanoate	
8 which of the following is an ordinary soap?		
A) Sodium stearate	B) calcium stearate	
C) Sodium acetate	D) sodium benzoate	
9) Soap is a?		
() Sodium stearate	calcium stearate	
CI Sodium acetate	D) sodium benzoate	
10) Detergent is		
A) Sodium stearate	B) sodium alkyl sulphonate	
C) Potassium butyrate	D) Sodium oleate.	
1) Bath soap is a mixture of		
potassium salts of higher fatty acids	n) c	CH18708233
C) potassium permit 8 and sodium stearate	B) Sodium and Calcium salt of higher f D) sodium Sales higher fatters info	atty acids
President permit of and sourcemstearate	D) sodium Salsa higher fatty acids	

ALdiastase	nd the facts are hydrolysed by which enzymes enzymes
a second and a second a second as a	B) zymase
C) Lipase	D) None
13) The chemical name of washing soda	
A) Mineral acid	-B) Fatty acid
C) Lactic acid7	D) Carbonic acid
14) The process of manufacturing of soap	is called
A) løn exchange	B) Allocation
C) Saponification	D) Steam distillation
15) Dishwashing liquids are examples of	
A) Soaps	B) apionic detergents
C) cationic detergents	-D) non-ionic detergents
16) What is the use of tri sodium phosph	ate in soap powders?
A) To make the soap act rapidly	B) To make it lather
C) To prevent rapid drying	D) For good odour
1	
17) Synthetic detergents are better than :	soaps
a) Synthetic detergent work both in soft	water and hard water
b) Soaps works both in soft water and har	rd water 🧹
c) Synthetic detergents works only in hard	d water
d) Soaps works only in hard water	
18) Which of the following is an example	of non-ionic detergent
a) Ammonium chloride	b) Sodiurp salts of alkyl sulphates
c) Sodium salts of alkyl benzene sulphonic	cacids d) Polyether
19) The % weight of detergent in washing	z powder is
19) The % weight of detergent in washing	
19) The % weight of detergent in washing a) 5-10 b) 50-70	g powder is et 15-0 d) 30-45
	et 15-0 d) 30-45
a) 5-10 b) 50-70	et 15-0 d) 30-45
a) 5-10 b) 50-70 20) If the carbon chain is linear the corres	et 15-0 d) 30-45 sponding detergent will be
a) 5-10 b) 50-70 20) If the carbon chain is linear the corres a) Soft and non-biodegradable	e) 15-0 d) 30-45 sponding detergent will be b).80ft and biodegradable d) Hard and non-biodegradable
a) 5-10 b) 50-70 20) If the carbon chain is linear the corres a) Soft and non-biodegradable	e) 15-0 d) 30-45 sponding detergent will be b).80ft and biodegradable
a) 5-10 b) 50-70 20) If the carbon chain is linear the corres a) Soft and non-biodegradable c) Hard and biodegradable	e) 15-0 d) 30-45 sponding detergent will be b).80ft and biodegradable d) Hard and non-biodegradable
a) 5-10 b) 50-70 20) If the carbon chain is linear the corres a) Soft and non-biodegradable c) Hard and biodegradable 21. Manufactures of household cleaners a	e) 15-0 d) 30-45 sponding detergent will be b).Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE
 a) 5-10 b) 50-70 20) If the carbon chain is linear the corres a) Soft and non-biodegradable c) Hard and biodegradable 21. Manufactures of household cleaners a 22. Labels of all home and garden product present and the amount of each. T/False 	e) 15-0 d) 30-45 sponding detergent will be b).Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE re required to list all ingredients of their products. T/False
 a) 5-10 b) 50-70 20) If the carbon chain is linear the corres a) Soft and non-biodegradable c) Hard and biodegradable 21. Manufactures of household cleaners a 22. Labels of all home and garden product present and the amount of each. T/False 23. Household products must be tested for 	e) 15-0 d) 30-45 sponding detergent will be b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSE are required to list all ingredients of their products. T/False is must be precise, showing exactly what substances are by their long-term health effects before being

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY P. Revali VALUE ADDED COURSE, (2022-23) Ind 85c CB2

SUBJECT HOUSE HOLD CHEMISTRY

QUESTION PAPER

1. Which of the following causes soap to lather.

a) sodium carbonate

c) sodium silicate

b) sodium rosinate d) borax **MARKS : 50**

2. What is the use of tri sodium phosphate in soap powder?

at to make the soap act rapidly

c) to prevent rapid drying

b) to make it lather
 d) for good odour

3. Identify the cationic detergent from the following

a) cetyltrimethyl ammonium bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

5. The best way to handle a household cleaner is to

a read the label

c) keep a window open

b) alcoholic drinks

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

d) all the above

b) use rubber gloves d) none of the above

6. What's an indication that you should stop using a chemical? a) You feel dizzy b) you feel nauseated d) any of the above

c) You develop a headache

7. Which of the following compound cannot remove grease from the clothes. A) Gasoline C) Soap D) potassium pentanoate

8 which of the following is an ordinary soap? A) Sodium stearate C) Sodium acetate

9) Soap is a? A) Sodium stearate C) Sodium acetate

10) Detergent is_____ A) Sodium stearate C) Potassium butyrate B) calcium stearate

D) sodium benzoate

B) calcium stearate

D) sodium benzoate

B) sodium aikyl sulphonate
 D) Sodium oleate.

11) Bath soap is a mixture of A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate

B) Sodium and Calcium salt of higher fatty acids -D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes Al diastase B} zymase

A) diastasi

B) zymase D) None 13) The chemical name of washing soda B) Fatty acid A} Mineral acid D) Carbonic acid C) Lactic acid7 14) The process of manufacturing of soap is called B) Allocation A) Ion exchange D) Steam distillation C Saponification 15) Dishwashing liquids are examples of B) anionic detergents A) Soaps D) non-ionic detergents C) cationic detergents 16) What is the use of tri sodium phosphate in soap powders? B) To make it lather A) To make the soap act rapidly D) For good adour C) To prevent rapid drying 17) Synthetic detergents are better than soaps a) Synthetic detergent work both in soft water and hard water Soaps works both in soft water and hard water (هر c) Synthetic detergents works only in hard water d) Soaps works only in hard water 18) Which of the following is an example of non-ionic detergent b) Sodium salts of alkyl sulphates Ammonium chloride d) Polyether c) Sodium saits of alkyl benzene sulphonic acids 19) The % weight of detergent in washing powder.45 d) 30-45 c) 15-0 6) 50-70 a) 5-10 20) If the carbon chain is linear the corresponding detergent will be b).Soft and biodegradable a) Soft and non-biodegradable d) Hard and non-biodegradable c) Hard and biodegradable TRUE / FALSE 21. Manufactures of household cleaners are required to list all ingredients of their products. T/False 22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False 23. Household products must be tested for their long-term health effects before being T/False Placed on the market. 24. Products placed on the market are not guaranteed to be safe. True/F "Active" ingredients make up the major portion of a product. T/False

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

- Andrew Control of the Control of t	
Name- R. Nandlen	Class BSC CBZ(EM) Marks obtained
	ON PAPER MARKS : 50
na na sana na mana na m	
1. Which of the following causes soap to lat	b) sodium rosinate
a) sodium carbonate	d) borax
c) sodium silicate	di bolax
2. What is the use of tri sodium phosphate i	in soap powder?
a) to make the soap act rapidly	b) to make it lather
c) to prevent rapid drying	d) for good odour
3. Identify the cationic detergent from the f	following
a cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulphate
c) Penta erythritol monosterate	d) sodium lauryl sulphate
4. Which of these are household poisons?	
a) toilet bowl cleaner	b) alcoholic drinks
c) cigarettes	d all the above
v ej elgarettes	01
5. The best way to handle a household clea	iner is to
a) read the label	use rubber gloves
c) keep a window open	d) none of the above
6. What's an indication that you should sto	op using a chemical?
A You feel dizzy	b) you feel nauseated 🔑
c) You develop a headache	d) any of the above
7. Which of the following compound canno	ot remove grease from the clothes.
A) Gasoline	B) potassium palmitate
C) Soap	D) potassium pentanoate
8 which of the following is an ordinary soap	°2
A) Sodium stearate	B) calcium stearate
el Sodium acetate	D) sodium benzoate
9) Soap is a?	
AT Sodium stearate	B) calcium stearate
C) Sodium acetate	D) sodium benzoate
10) Detergent is	
A) Sodium stearate	& sodium alkyl sulphonate
C) Potassium butyrate	D) Sodium oleate.
cj rotassium outviete	
11) Bath soap is a mixture of	
Apotassium salts of higher fatty acids 🦯	B) Sodium and Calcium salt of higher fatty acids
C) potassium permit 8 and sodium stearate	 D) sodium Salsa higher fatty acids

12) In human being and animals the oil a	and the facts are hydrolysed by which enzymes enzymes
A) diastase	B) zymase
Chipase	D) None
13) The chemical name of washing soda	
A) Mineral acid	B) Fatty acid
C) Lactic acid7	D) Carbonic acid
14) The process of manufacturing of soa	
Afton exchange 5	B) Allocation
C) Saponification	D) Steam distillation
15) Dishwashing liquids are examples of	
A) Soaps	B) anionic detergents
C) cationic detergents	D) non-ionic detergents
16) What is the use of tri sodium phosp	hate in soap powders?
A) To make the soap act rapidly	B) To make it lather
C) To prevent rapid drying	D) For good odour
	and the second
17) Synthetic detergents are better than	
Synthetic detergent work both in sof	
b) Soaps works both in soft water and ha	
c) Synthetic detergents works only in ha	rd water
d) Soaps works only in hard water	
18) Which of the following is an example	e of non-lonic detergent
a) Ammonium chloride	 b) Sodium salts of alkyl sulphates
c) Sodium salts of alkyl benzene sulphon	nic acids di Polyether
19) The % weight of detergent in washir	ng powder is
a) 5-10 b) 50-70	d) 30-45
20) If the carbon chain is linear the corre	esponding detergent will be
a) Soft and non-biodegradable	b) Soft and biodegradable
c) Hard and biodegradable	di Hard and non-biodegradable
	TRUE / FALSE
21. Manufactures of household cleaners	are required to list all ingredients of their products. T/False
22. Labels of all home and garden produ present and the amount of each. T/Faise	pts must be precise, showing exactly what substances are
	for their long-term health effects before being
Placed on the market. T/False	

24. Products placed on the market are not guaranteed to be safe.

True/F T/False

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM Risklavya Sridui I B-SC CBZ-DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23) SUBJECT - HOUSE HOLD CHEMISTRY **MARKS : 50** QUESTION PAPER Which of the following causes soap to lather. b) sodium rosinate a) sodium carbonate di forax c) sodium silicate 2. What is the use of tri sodium phosphate in soap powder? b) to make it lather al to make the soap act rapidly d) for good odour c) to prevent rapid drying Identify the cationic detergent from the following b) Sonam dodecyl sulphate a) cetyltrimethyl ammonium bromide d) sodium lauryl sulphate c) Penta erythritol monosterate 4. Which of these are household poisons? b) alcoholic drinks a) toilet bowl cleaner diall the above c) cigarettes 5. The best way to handle a household cleaner is to b) use rubber gloves a) read the label d) none of the above c) keep a window open 6. What's an indication that you should stop using a chemical? b) you feel nauseated a) You feel dizzy d) any of the above y You develop a headache 7. Which of the following compound cannot remove grease from the clothes. (B) potassium palmitate A) Gasoline D) potassium pentanoate C) Soap 8 which of the following is an ordinary soap? B) calcium stearate (A) Sodium stearate D) sodium benzoate C) Sodium acetate 9) Soap is a? B) calcium stearate Sodium stearate D) sodium benzoate C) Sodium acetate 10) Detergent is_ (sodium alkyl sulphonate A) Sodium stearate D) Sodium oleate. C) Potassium butyrate 11) Bath soap is a mixture of B) Sodium and Calcium salt of higher fatty acids 🚽 A) potassium salts of higher fatty acids D) sodium Salsa higher fatty acids C) potassium permit 8 and sodium stearate 12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes **M** diastase

C) Lipase

B) zymase D) None

13) The chemical name of washing soda A) Mineral acid C) Lactic acid7

14) The process of manufacturing of soap is called A) lon exchange C) Saponification

15) Dishwashing liquids are examples of A) Soaps C) cationic detergents

D non-ionic detergents

B) aniopric detergents

BI Fatty acid

D) Carbonic acid

B) Allocation

D) Steam distillation

16) What is the use of tri sodium phosphate in soap powders?

A) To make the soap act rapidly

C) To prevent rapid drying

BY To make it lather D) For good odour

d) 30-45

Hard and non-biodegradable

17) Synthetic detergents are better than soaps

Synthetic detergent work both in soft water and hard water

- b) Soaps works both in soft water and hard water
- c) Synthetic detergents works only in hard water
- d) Soaps works only in hard water

18) Which of the following is an example of non-ionic detergent

- b) Sodium salts of alkyl sulphates a) Ammonium chloride d} Polyether
- c) Sodium salts of alkyl henzene sulphonic acids

19) The % weight of detergent in washing powder is b) 50-70 c) 15-0 a) 5-10

20) If the carbon chain is linear the corresponding detergent will be b) Soft and biodegradable a) Soft and non-biodegradable

c) Hard and biodegradable

TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe. True/F

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY VALUE ADDED COURSE, (2022-23)

5. ISwirya II. B. SC. CB2 MARKS : 50

SUBJECT : HOUSE HOLD CHEMISTRY

QUESTION PAPER

1. Which of the following causes soap to lather.

a) sodium carbonate

c) sodium silicate

b) sodium rosinate d) borax

2. What is the use of tri sodium phosphate in soap powder?

a) to make the soap act rapidly

c) to prevent rapid drying

b) to make it lather d) for good odour

3. Identify the cationic detergent from the following

a) cetyltrimethyl ammonium bromide

c) Penta erythritol monosterate

4. Which of these are household poisons?

a) toilet bowl cleaner

c) cigarettes

5. The best way to handle a household cleaner is to

___a) read the label

c) keep a window open.

b) alcoholic drinks d) all the above

b) Sonam dodecyl sulphate

d) sodium lauryl sulphate

b) use rubber gloves d) none of the above

6. What's an indication that you should stop using a chemical? b) you feel nauseated a) You feel dizzy d) any of the above

c) You develop a headache

Which of the following compound cannot remove grease from the clothes. B) potassium palmitate A) Gasoline D) potassium pentanoate C) Soap

8 which of the following is an ordinary soap? A) Sodium stearate

C) Sodium acetate

9) Soap is a? A) Sodium stearate C) Sodium acetate

10) Detergent is_ A) Sodium stearate

C) Potassium butyrate

11) Bath soap is a mixture of

A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate

B) calcium stearate D) sodium benzoate

B) calcium stearate D) sodium benzoate

8) sodium alkyl sulphonate D) Sodium oleate.

B) Sodium and Calcium salt of higher fatty acids D) sodium Salsa higher fatty acids

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes

A) diastase C) Lipase

B) zymase D) None

13) The chemical name of washing soda B) Fatty acid A) Mineral acid D) Carbonic acid C) Lactic acid7 14) The process of manufacturing of soap is called A/lon exchange B) Allocation C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of B) anionic detergents Al Soaps D) non-ionic detergents C) cationic detergents 16) What is the use of tri sodium phosphate in soap powders? A) To make the soap act rapidly B) To make it lather C) To prevent rapid drying. D) For good odour 17) Synthetic detergents are better than soaps t a) Synthetic detergent work both in soft water and hard water b) Soaps works both in soft water and hard water c) Synthetic detergents works only in hard water d) Soaps works only in hard water 18) Which of the following is an example of non-ionic detergent a) Ammonium chloride b) Sodium saits of alkyl sulphates c) Sodium salts of alkyl benzene sulphonic acids d) Polyether 19) The % weight of detergent in washing powder is a) 5-10 b) 50-70 d) 30-45 c) 15-0 20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft and biodegradable. c) Hard and biodegradable d) Hard and non-biodegradable TRUE / FALSE 21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe,

True/F

DEPAR VALUE AD	EE COLLEGE (W), RAJAMAHENDRAV RTMENTOF CHEMISTRY DED COURSE, (2022-23)	U.Deepika TIBS (CB2)
SUBJECT : HO	USE HOLD CHEMISTRY	TIRS (CR2)
	STION PAPER	MARKS : 50
1. Which of the following causes soap to la	ather.	100
a) sodium carbonate	sodium rosinate	(36)
c) sodium silicate	d) borax	\smile
2. What is the use of tri sodium phosphate	in soap powder?	
 a) to make the soap act rapidly 	b) to make it lather	
c) to prevent rapid drying	d) for good odour	2
3. Identify the cationic detergent from the	following	
a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulp	hate \
ci Penta erythritol monosterate	d) sodium lauryl sulpha	
4. Which of these are household poisons?		
a) toilet bowl cleaner	 b) alcoholic drinks 	
c) cigarettes	d) all the above	
5. The best way to handle a household clea	iner is to	
a) read the label	b) use rubber gloves	
C) keep a window open	d) none of the above -	
6. What's an indication that you should sto	p using a chemical?	
a) You feel dizzy	b) you feel nauseated	
c) You develop a headache	d) any of the above	
~	d) any of the above	
7. Which of the following compound cannot	t remove grease from the clother	
A) Gasoline	B) potassium palmitate	1
C) Soap	D) potassium pentanoa	
8 which of the following is an ordinary soap	<i>,</i> ,	
Al Sodium stearate	B) calcium stearate	
C) Sodium acetate	D) sodium benzoate	
9) Soap is a?		
Al Sodium stearate	Pl colsium streams	
C) Sodium acetate	B) calcium stearate D) sodium benzoate	
10) Detergent is		
A) Sodium stearate	Readium alled a taba	
C) Potassium butyrate	D) Sodium alkyl sulphon D) Sodium oleate.	late
11) Bath soap is a mixture of		
A) potassium salts of higher fatty acids	B) Sodium and Coleium acts of the	
C) potassium permit 8 and sodium stearate	B) Sodium and Calcium salt of hi DI sodium Salsa higher fatty acid	gner fatty acids
12) In human being and animals the oil and t A) diastase	the facts are hydrolysed by which e B) zymase	nzymes enzymes
	DI ZVITIASE	

C) Lipase

B) zymase B) None 13) The chemical name of washing soda A) Mineral acid C) Lactic acid7

B) Fatty acid D) Carbonic acid

B) Allocation

14) The process of manufacturing of soap is called A) Ion exchange C) Saponification

15) Dishwashing liquids are examples of A) Soaps C) cationic detergents

B) anionic detergents D) non-ionic detergents

D) Steam distillation

16) What is the use of tri sodium phosphate in soap powders?

A) To make the soap act rapidly

C) To prevent rapid drying

B) To make it lather D) For good odour

17) Synthetic detergents are better than soaps

a) Synthetic detergent work both in soft water and hard water

b) Spaps works both in soft water and hard water

c) Synthetic detergents works only in hard water

d) Spaps works only in hard water

18) Which of the following is an example of non-ionic detergent

a) Ammonium chloride

b) Sodium salts of alkyl sulphates d) Polyether

c) Sodium salts of alkyl benzene sulphonic acids

19) The % weight of detergent in washing powder is

c)-15-0 d) 30-45 a) 5-10 b) 50-70

20) If the carbon chain is linear the corresponding detergent will be a) Soft and non-biodegradable b) Soft and biodegradable d) Hard and non-biodegradable

c) Hard and biodegradable

TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

23. Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe. True/F

SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM DEPARTMENTOF CHEMISTRY 4. D. S.; Amratha VALUE ADDED COURSE, (2022-23) HOUSE HOLD CHEMISTRY

?P	AT I COMPT
2.4	
77	BSC CRT.
11	BOC (Rt.

民

	山 BS	CCB
Name- Cla	ass- Marks obtained-	
QUESTION	N PAPER MARK	S:50
1. Which of the following causes soap to lathe	er.	
a) sodium carbonate	b) sodium rosinate	
€ sodium silicate	d) borax 🔨	
2. What is the use of tri sodium phosphate in	soap powder?	
ھ) to make the soap act rapidly	b) to make it lather	
c) to prevent rapid drying	d) for good adour	
3, Identify the cationic detergent from the fol	lowing	
a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulphate	
c) Penta erythritol monosterate	d) sodium lauryl sulphate	
4. Which of these are household poisons?		
a) toilet bowl cleaner	کر) alcoholic drinks	
c) cigarettes	d) all the above	
5. The best way to handle a household cleane	r is to	
هز read the label	b) use rubber gloves	
c) keep a window open	d) none of the above	
6. What's an indication that you should stop u	ising a chemical?	
a) You feel dizzy	b) you feel nauseated	
c) You develop a headache	d) any of the above	
7. Which of the following compound cannot r	emove grease from the clothes.	
A) Gasoline	B) potassiem palmitate 🧹	
C) Soap	D) potassium pentanoate	
8 which of the following is an ordinary soap?	/	
A) Sodium stearate	B) calcium stearate	
C) Sodium acetate	D) sodium benzoate	
9) Soap is a?		
A) Sodium stearate	B) calcium stearate	
C) Sodium acetate	D) sodium benzoate	
10) Detergent is	1	
A) Sodium stearate	🔊 sodium alkyl sulphonate 🛛 🗸	
C) Potassium butyrate	D) Sodium oleate.	
11) Bath soap is a mixture of		
M potassium salts of higher fatty acids	B) Sodium and Calcium salt of higher fatty acid	s /
C) potassium permit 8 and sodium stearate	D) sodium Salsa higher fatty acids	1

12) In human being and animals the oil and the facts are hydrolysed by which enzymes enzymes

A) diastase C) Lipase B) zymase
D) None

13) The chemical name of washing soda

A) Mineral acid

C) Lactic acid7

B) Fatty acid D) Carbonic acid

B) Allocation

14) The process of manufacturing of soap is called A) Ion exchange C) Saponification

15) Dishwashing liquids are examples of _____
 A) Scaps
 C) cationic detergents

B) anionic detergents D) non-ionic detergents

D) Steam distillation

16) What is the use of tri sodium phosphate in soap powders?

A) To make the soap act rapidly

C) To prevent rapid drying

B) To make it lather

17) Synthetic detergents are better than soaps

a) Synthetic detergent work both in soft water and hard water

b) Soaps works both in soft water and hard water

c) Synthetic detergents works only in hard water

d) Soaps works only in hard water

18) Which of the following is an example of non-ionic detergent

a) Ammonium chloride b) Sodium salts of alkyl sulphates c) Sodium salts of alkyl benzene sulphonic acids d**} Polyether**

19) The % weight of detergent in washing powder is a) 5-10 b) 50-70 c) 15-0

d) 30-45

True/

20) If the carbon chain is linear the corresponding detergent will be

a) Soft and non-biodegradable
 c) Hard and biodegradable

b) Saft and biodegradable

TRUE / FALSE

21. Manufactures of household cleaners are required to list all ingredients of their products. T/False

22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

 Household products must be tested for their long-term health effects before being Placed on the market. T/False

24. Products placed on the market are not guaranteed to be safe.

S.K.R.GOVERNMENT DEGREE COLLEGE (WOMEN):: RAJAMAHENDRAVARAM DEPARTMENT OF CHEMISTRY CERTIFICATE COURSE

MARKS AWARDED - HOUSE HOLD CHEMICALS VALUE ADDED COURSE

Date: 01/03/8083 Class: II BSc MPC

Time:1hour MaxMarks:50

Students List

S.No	Regd.No	Name of the Students	Marks	Marks in Words
1	210907101002	Bade Mahalakshmi	38	Thirsty Eight
2	210907101003	Bandaru N S K Mahalakshmi	Not	attended
3	210907101007	Ganneti Baby	36	Thirty Six
4	210907101008	Gavara Uma B Naga Sridevi	36	-Thirty Six
5	210907101013	Kakuri Rama Lakshmi	46	Fosty Six
6	210907101018	Madakam Ramulamma	3%	whenty Eight
7	210907101019	Pamparaboyina Siri	42	FORTY TWO
8	210907110112	Karam Vishnavi	40	Forly only
9	210907110113	Karri Bhanu Prasanna	36	Thropy six
10	210907110116	Kondapalli Mrudula Devi	36	Thirty six
11	210907110118	Kotla Kameswari	44	Fosty Pour
12	210907110120	Kote Naga Lakshmi	36	Thirty Six
13	210907110121	Kulla Sridevi	Not	attended
14	210907110128	Madam Sravani	34	Thisty Four
15	210907110131	Mohhammed Soha Alia	50	Fifty only
16	210907110133	Muchi Ranjitha	NOL	attended
17	210907110134	Mulavada Charmila	NOt	attended
18	210907110139	Pallala Hema Latha Reddy	34	thirsty Four
19	210907110140	Poluju Priyanka	Not	attended
20	210907110141	Potula Gnana Roopa Sri	46	Forty Six
21	210907110142	Pyla Revathi	38	Thirsty Eigh
22	210907110143	R Nandini	42	FORTY TWO
23	210907110144	Relangi Navya Sridevi	30	Theory only
24	210907110152	Sode Ishwarya	32	Thray Two
25	210907110153	S Nagajyothi	Not	attended
26	210907110154	5 Neeraja	Not	attended
27	210907110159	Tupuri Shanthi	Not	attended
28	210907110160	Uppu Deepika Sravanthi	36	Thirsty six
29	210907110165	Yandamuri P Sai Amrutha	38	Thirsty Eigh
20	2109641010 88	Rolupallic L. Sowjanga	42	Footy Two

Il. Scent Dr. M. Sunitha

Dr. Ch.V.V. Srinivas Lecturer in Chamistry S.K.R. Government Degree College (W) S.K.R. Government Degree College (W)

RAMAMATENDIAVARAM.

PRINCIPAL S.K.R. Government Degree College (Nomera) RAJAMAHENDRAVARAM. East Godinan Dest., St. Str. Fradesh

RAJAMAHENDRAVARAM.

Lecturer to Chemistry



S.K.R.GOVERNMENT DEGREE COLLEGE (WOMEN), **RE-ACCREDITED AT B+ LEVEL BY NAAC** RAJAMAHENDRAVARAM,

Certificate



II B.Sc succesfully completed the Value Added Course on House Hold Chemicals conducted by the Department of Chemistry from 02-01-2023 to 01-03-2023. This is to certify that

5

Head of the Department

Principal



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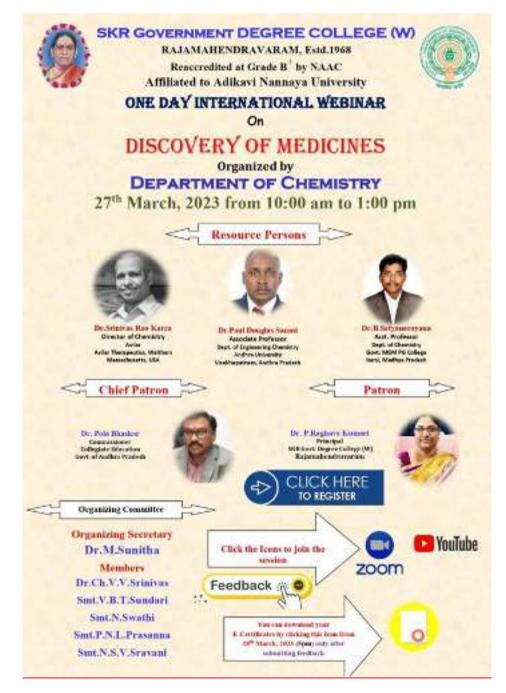
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Discovery of Medicines

On 27thMarch 2023 at 10:00 A.M

ZOOMMeet :https://us06web.zoom.us/j/89738543721?pwd=RER1UGVvUHIDbi8xTW44WW1JTXVRQT09

YouTubeLive: https://youtube.com/live/7tegzbY6ONA?feature=share



BRIEF REPORT ON WEBINAR

The Department of Chemistry organised a webinar

Topic- Discovery of Medicines" on 27thMarch2023at10:00A.M,

through the **ZOOM** platform.

College Principal Dr.P.RaghavaKumari started with opening remarks and explained the essence of the Webinar.

1) Dr Paul Douglas Sanasi, Associate Professor, AU College of Engineering(A), Andhra University has delivered Key note address on the topic , the importance of the drug synthesis, analysis of impurities and identification of source of impurities at lower concentrations during the metabolism.

2) Dr SrinivasaRaoKarra, Director of Chemistry, Avilar Therapeutics, Massachusetts, USA. He explained about the discovery of medicines, causes for diseases and functions of medicines to control the diseases.

3)Dr B .Satyanarayana Assistant Professor Department of Chemistry, MGM PG College, Itarsi, Madhya Pradesh explained the history and discovery of medicine and drug delivery systems.

We received good response from the audience and they gave very good feedback.

We thank Commissioner of Collegiate Education Dr Pola Bhaskar, Principal Dr P RaghavaKumari, HODs, faculty members, participants and other officials for their active support for making the program very successful.

In this webinar from all over India 329 teachers, students, academicians and researchers participated actively.

Principal SKRG D C (W), Rajamahendravaram

Registrations

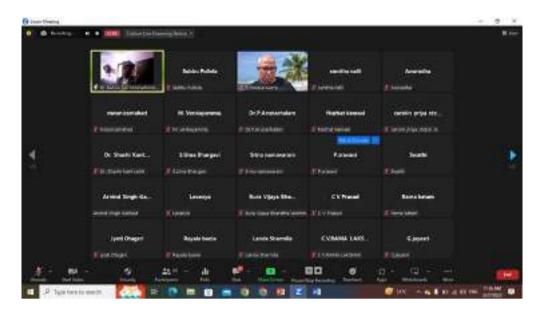
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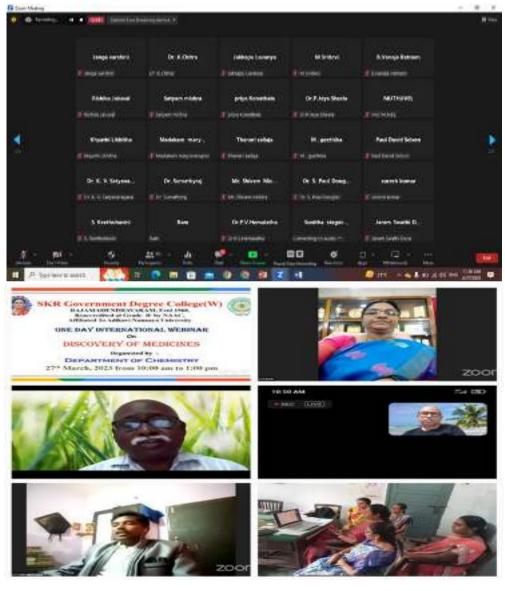
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Certificate model







S K R COLLEGE FOR WOMEN RAJAMAHENDRAVARAM (Re-Accredited by NAAC B+ Grade) : Affiliated to Adikavi Nannaya University) DEPARTMENT OF CHEMISTRY BRIDGE COURSE

.....

"THE ESSENCE OF EDUCATION LIES IN DRAWING OUT THE VERY BEST THAT IS IN YOU"

A bridge course is a series of classes that help students transition from Intermediate level to graduation by providing them with necessary skills and knowledge about topics that will be covered in their new course.

Objectives:

- The main objective of the course is to bridge the gap between subjects studied at pre-university level and subjects they would be studying in B.Sc Course.
- · To enrich the students to learn basic concepts in the subjects of B.Sc I semester.
- To give students confidence and skills to successfully transform to college and new curriculum
- · Interactive and Active Learning by doing have been weaved into the Bridge Course.
- · Active Learning with the help of other/ peer students.
- · To achieve the concept of Assisted Learning.

Standard Operating Procedure

- A Bridge Course for newly admitted B.Sc Students is conducted every year before commencement of First Semester Classes. The syllabus for the B.Sc course is designed in such a way that, equal importance is given to both Chemistry discipline subjects and personality development.
- Bridge Course helps the students to open up, think creatively and become responsible and independent students. I also help smooth transition to Chemistry course. The sound grasp of the fundamentals of Chemistry and Management subjects by the students lays the strong foundation for the entire Three/ Four Years Programme.

> Highlights of the Bridge Course:

1) States of Matter

Dr.M.Sunitha, Faculty, Department of Chemistry explained in detail about 1. The three states of matter 2. Intermolecular interaction 3.Hydrogen bonding 4. The gaseous state 5.Boyle's law, Charles law. 6. Gay Lussac's law, Avogadro law 7. Kinetic theory - molecular speeds 8. Liquid state 9. Vapour pressure 10. Surface tension 11.Viscosity, lecture come demonstration method atomic model blackboard

2) Periodic table

 Smt. V.B.T.Sundari Faculty, Department of Chemistry explained about Overview of Periodic table Periodic trends in properties of Elements - a) Atomic radius b) Ionization potential c) Electro negativity d) Ionic radius e) Density.

3) Fundamentals of Organic Reaction Mechanism:

Smt. V.B.T.Sundari, Department of Chemistry explained about the basic concepts stability of Carbocation, Carbanion, and Carbon free radical 2. Types of Reagents- Electrophiles and Nucleophiles 3.Curved arrow notations, cleavage of bond-homolytic and heterolytic cleavage 4. Resonance effect, Inductive effect, Mesomeric effect and Steric effect 5.Types of reactions- Addition, Elimination, Substitution, and Rearrangement

4) Structure of Atom:

Dr.M.Sunitha, Faculty, Department of Chemistry gave an Overview of Structure of Atom Quantum number - i) Principal quantum number ii) Azimuthal quantum number iii) Magnetic quantum number iv) Spin quantum number, Shape of orbitals - a) s - orbital b) p - orbital c) d - orbital a) Aufbau principle b) Pauli's exclusion principle c) Hund's rule.

ACTION PLAN / REPORT ON BRIDE COURSE FOR THE ACADEMIC YEAR 2022-2023

Date	Time/ Hour	Topic	Content/Activity	Resource Person
07/11/22	4 th	States of Matter	1. The three states of matter 2. Intermolecular interaction 3. Hydrogen bonding 4. The gaseous state 5. Boyle's law, Charles law. 6. Avogadro law 7. Kinetic theory - molecular speeds 8. Liquid state 9. Vapour pressure 10. Surface tension 11. Viscosity.	Dr.M.Sunitha
10/11/22	2 rd	Overview of Periodic table	Periodic trends in properties of Elements - a) Atomic radius b) Ionization potential c) Electro negativity d) Ionic radius e) Density.	Smt.V.B.T.Sundari
11/11/22	4 th	Fundamentals of Organic Reaction Mechanism	 stability of Carbocation, Carbanion, and Carbon free radical Types of Reagents- Electrophiles and Nucleophiles Curved arrow notations, cleavage of bond-homolytic and heterolytic cleavage Resonance effect, Inductive effect, Mesomeric effect and Steric effect Types of reactions- Addition, Elimination, Substitution, and Rearrangement 	Smt.V.B.T.Sundari
12/11/22	1 st	Structure of Atom	 i) Principal quantum number ii) Azimuthal quantum number iii) Magnetic quantum number iv) Spin quantum number, Shape of orbitals - a) s - orbital b) p - orbital c) d - orbital a) Aufbau principle b) Pauli's exclusion principle c) Hund's rule 	Dr.M.Sunitha

S K R COLLEGE FOR WOMEN RAJAMAHENDRAVARAM (Re-Accredited by NAAC B+ Grade) : Affiliated to Adikavi Nannaya University) DEPARTMENT OF CHEMISTRY BRIDGE COURSE – 2022-2023

1) Dr.M.Sunitha, Faculty, Department of Chemistry giving an Overview of States of Matter



2) Smt. V.B.T.Sundari, Faculty, Department of Chemistry explain about Fundamentals of Organic Reaction Mechanism



3.Dr.M.Sunitha, Faculty, Department of Chemistry giving an Overview of structure of Atom.



4. Smt. V.B.T.Sundari, Faculty, Department of Chemistry explain about Fundamentals of Periodic table



Marketing Strategies to go vibrant in Digital Era

REVIEW OF ETHICAL ISSUES IN MARKETING

Dr. Ch. V.V. SINIVAS

Lecturer in Chemistry, SKR Government Degree College, Rajamahenndravaram

ABSTRACT

Marketing is a task-oriented discipline. The task of the marketing manager is to structure the Marketing is a task-oriented discipline. The tachter the achievement of the firm's business relations between his firm and its customers so as to further the marketing manager's efficiences in the improve the marketing manager's efficiences. relations between his firm and its customers so us improve the marketing manager's efficiency in doing aims. Marketing, as a subject of study, aims to improve the marketing standards are applied to make a for the second standards are applied to make a format standards are applied to make a aims. Marketing, as a subject of study, aims to improve moral standards are applied to marketing this job. Marketing ethics is the systematic study of how moral standards inherent to most argument. this job. Marketing ethics is the systematic study of the process inherent to most organisation, decisions, behaviours, and institutions. Because marketing ethics: thus, much of what is write decisions, behaviours, and institutions. Because manuscrimess ethics; thus, much of what is written about marketing ethics should be viewed as a subset of business ethics; it is also useful to distinguish about marketing ethics should be viewed as a subset of that the outset, it is also useful to distinguish between business ethics applies to marketing ethics as well. At the outset, it is also useful to distinguish between business ethics applies to marketing ethics as well, in marketing ethics looks at marketing practices from positive and normative marketing ethics. Positive marketing ethics looks at marketing practices from positive and normative marketing ethics. Positive generating of organisations that have codes of the standpoint of "what is." For example, specifying the percentage of organisations that have codes of the standpoint of "what is." For example, specifying of violations that deal with deceptive advertising ethical marketing practice or tracking the number of violations that deal with deceptive advertising ethical marketing practice or tracking the number of normative marketing ethics deals with how would be examples of positive marketing ethics. In contrast, normative marketing ethics deals with how would be examples of positive marketing comes. In coal standard or theory. When the words "marketing marketing ought to operate according to some moral standard or theory. When the words "marketing marketing ought to operate according to some must be reports typically describe a marketing ethics" appear in the general media or business press, the reports typically describe a marketing ethics" appear in the general media or outdress purchases or "exploitive" or "deceptive". The strategy, tactic, or policy that some constituency feels is "unfair" or "exploitive" or "deceptive". The strategy, tactic, or policy that some consumer how marketing practices might become more consumer, friendly, socially compatible, or put in philosophical terms, how marketing might be normatively improved.

Key words: Ethical issues, Marketing practice, Pricing, Distribution, Advertisement

1. INTRODUCTION:

Because marketing is the organisational process focused directly on exchange, ethical issue in marketing have existed since the inception of trade. The Roman philosopher Cicero counsels merchants to avoid raising prices too high in times of shortage, lest they alienate their customer who might shun them when supplies were more abundant. However, the analysis of marketing the from a more systematic and analytical standpoint has only begun to develop in the past 40 year Since the mid-1960s, the literature on marketing ethics has grown substantially. While cynics vie the term marketing ethics as an oxymoron, no doubt due partly to the frequent questionable activity of some used car dealers, advertising copyrighters, and telemarketers, there exist clear and articular standards of proper behaviour that are "peer endorsed" by marketing practitioners. In other word marketing managers themselves have expressed their opinions as to the ideal obligations inherent the honest and forthright conduct of marketing. Perhaps the best known of these codes of conduct the American Marketing Association's (AMA's) "Statement of Ethical Norms and Values Marketers." This document specifically states that marketers serve not only their compa enterprises but also act as stewards of society in creating, facilitating, and executing the efficient a effective exchange transactions that are part of a greater economy. The AMA statement recognit the duties that marketers have to all stakeholders (e.g., customers, employees, investors, chan members, regulators, and the host community) as they discharge their job responsibilities. T document explicitly warns that marketers must not knowingly do harm in executing their selli responsibilities, that marketers have a duty to foster trust in the marketing system, and that the should embrace basic marketplace values, including truth telling, genuine service to custom avoidance of practices acclaimed to be unfair, and an adherence to honest and open communication with clients. Significantly, it states that marketing organisations have responsibilities of "citizensh just as individuals do. Documents such as the AMA Statement represent hard evidence that there bedrock ethical standards and values that have been agreed on by numerous marketing practitioner

ISBN: 978-93-92257-52-0

DEPARTMENT OF CHEMISTRY

BEST PRACTICE 2022-23

ACTIVITY-1 CAMPAIGN IN CONNECTION WITH WORLD OZONE DAY

1. Title of the Practice

CAMPAIGN AGAINST USAGE OF PP CARRY BAGS

2. Objectives of the Practice

Now a day's people are addicted to PP carry bags usage. The PP carry bags are not biodegradable hence their usage should be stopped.

3. The Context

Soil will lose its fertility, thereby plants doesn't grow to the expected extent which leads to shortage of food grains. In order to overcome this problem the usage of PP carry bags should be stopped and in place of these bags made up of biodegradable materials like cloths or papers should be used.

4. The Practice

Department of Chemistry is in practice of campaigning about the hazardous dangers of usage PP covers and the usage of bags made up of biodegradable materials.

5. Evidence of Success

Department of Chemistry stitched cloth bags and involved the students in making of paper bags. These are distributed to the RMC sanitary workers and instructed them to use these bags instead of PP carry bags. The RMC sanitary workers expressed their feelings with full satisfaction.

6. Problems encountered and resources required

The preparation of cloth bags is an expensive task. It is not possible for the staff of the department to contribute always, hence financial aid should be supported to continue the practice.



DEPARTMENT OF CHEMISTRY

BEST PRACTICE 2021-22

ACTIVITY 2: EXHIBITION CUM SALES OF PLANTS:

To promote the custom of bringing plants rather than bouquets to celebrations on the eve of the new year, the Department of Chemistry organised an exhibition and sale of plants.



MEMORANDUM OF UNDERSTANDING (MOU) BETWEEEN DEPARTMENT OF CHEMISTRY SMT.KANDUKURI RAJYALAKSHMI COLLEGE FOR WOMEN, RAJAMAHENDRAVARAM, ANDHRAPRADESH AND QREN LIFESCIENCES PVT. LTD. AMEERPET, HYDERABAD, TELANGANA, INDIA

This Memorandum of Understanding (MOU) sets for the terms and understanding for training and employment possibilities for the students of "Department of Chemistry", S.K.R.COLLEGE FOR WOMEN, Rajamahendravaram. Objectives of the MOU:

The objectives of MOU are:

- To promote and enhance interest between students of Chemistry Department, Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and QREN LIFESCIENCES PVT.LTD., AMEERPET, HYDERABAD, TELANGANA, INDIA.
- To provide advice for implementation of quality education at Department of Chemistry, Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram.
- To bridge the gap between the requirements of the potential employers and education by providing skill-development programmes for the improvement of employability of the students.
- The two institutions will encourage direct contact and cooperation between students and experts in this field for the exchange of facilities and equipment.
- The above goals will be accomplished by the activities such as educational visit, short-term training and internships.
- Recognise the mutual interest in the fields of training and development and dissemination of knowledge.

Proposed modes of Collaboration

Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and QREN LIFESCIENCES PVT.LTD., Ameerpet, Hyderabad, Telangana, India proposed to collaborate through the following:

- Cooperation and promotion of education, training and research in the areas of mutual interest.
- Any other appropriate mode of interaction agreed upon between Department of Chemistry, Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and QREN LIFESCIENCES PVT.LTD., Ameerpet, Hyderabad, Telangana.
- A specific plan will be worked out by the institute depending upon availability of resource.
- A specific agreement will be entered into for each activity.

TERMS AND CONDITIONS

Duration: This MOU is at will and may be modified by mutual consent of authorized officials from the list partners.

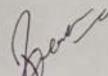
Coordinators: College and QREN LIFESCIENCES PVT.LTD., Ameerpet, Hyderabad, Telangana will designate persons who will have responsibility for co-ordination and implementation of this agreement.

Signed in Duplicate: This MOU is executed in duplicate with each copy being an official version and having equal legal validity.

By signing below the institutes acting by their duly authorised Officer, have caused this memorandum of understanding to be executed effective as of the day and year first above written on today i.e., on 01-04-2022 for a period of TWO academic years.

Principal

S.K.R.College for Women, Rajamahendravaram S.K.R. Esst. Godavari- ACPMEN HITHAKARINI SAMAJ Endowmenta Dept. GovLol Andria Pradem RAJAMAHENDRAVARAM



QREN WESCIENCES PVT.LTD. Ameerpet, Hyderabad Telangana -500016

QREN LIFE SCIENCES PVT. LTD. 6-3-852/28/11, Aparajita Colony, Lal Bungalow, Ameerpet, Hyderabad-500 016.



MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN DEPARTMENT OF CHEMISTRY SMT. KANĐUKURI RAJYALAKSHMI COLLEGE FOR WOMEN, RAJAMAHENDRAVARAM, ANDHRA PRAĐESH, INDIA AND VASISHTA PESTICIDES PRIVATE LIMITED, AVIDI, KOTHAPETA MANDAL, EAST GODAVARI DISTRICT,

ANDHRA PRADESH, INDIA This Memorandum of Understanding (MOU) sets for the terms and understanding for training and employment possibilities for the students of TDepartment of Chapter 7, 0000 Colling

and employment possibilities for the students of "Department of Chemistry", SKR College for Women, Rajamahendravaram.

Objectives of the MOU:

The objectives of the MOU are:

- To promote and enhance interest between students of Chemistry Department, Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and Vasishta Pesticides Private Limited.
- To provide advice for implementation of quality education at Department of Chemistry, Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram.
- To bridge the gap between the requirements of the potential employers and education by
 providing skill-development programmes for the improvement of employability of the
 students.
- The two institutions will encourage direct contact and cooperation between students and experts in this field for the exchange of facilities and equipment.
- The above goals will be accomplished by the activities such as educational visit, shortterm training and internships.
- RECOGNISE the mutual interest in the fields of training and development and dissemination of knowledge.

Proposed modes of Collaboration

Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and Vasishta Pesticides Private Limited proposed to collaborate through the following:

- Co-operation and promotion of education, training and research in the areas of mutual interest.
- Any other appropriate mode of interaction agreed upon between Department of Chemistry, Smt. Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and M/s. Vasishta Pesticides Private Limited, Avidi, Kothapeta Mandal, East Godayari, A.P.
- A specific plan will be worked out by the institute depending upon availability of resource.
- A specific agreement will be entered into for each activity.

TERMS AND CONDITIONS

Duration: This MOU is at will and may be modified by mutual consent of the authorized officials from the list partners.

Coordinators: College and M/s. Vasishta Pesticides Private Limited, Avidi, Kothapeta Mandal, East Godavari, Andhra Pradesh will designate persons who will have responsibility for co-ordination and implementation of this agreement.

Signed in duplicate: This MOU is executed in duplicate with each copy being an official version and having equal legal validity.

By signing below the institutes acting by their duly authorized officer, have caused this memorandum of understanding to be executed effective as of the day and year first above written (i.e., from 27-01-2021).

Principal

SKR College from Women Rajamahendravaram East Godavari – A. P. PRINCIPAL SKR. COLLEGE FOR WOMEN HITHAKARINI SAMAJ Endowments Dept. (Govi. of A.P.) RAJAHMUNDRY.



For VASISHTA PESTICIDES PVT. LTD.

Managing Director M/s.Vasishta Pesticides Limited Avidi, Kothapeta Mandal East Godavari – A. P.

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEEN DEPARTMENT OF CHEMISTRY SMT.KANDUKURI RAJYALAKSHMI COLLEGE FOR WOMEN, RAJAMAHENDRAVARAM, ANDHRAPRADESH AND HETERO DRUGS , HYDERABAD, TELANGANA, INDIA

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The objectives of MOU are:

- To promote and enhance interest between students of Chemistry Department, Smt.Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and HETERO DRUGS, HYDERABAD, TELANGANA, INDIA.
- To provide advice for implementation of quality education at Department of Chemistry, Smt.Kandukuri Rajyalakshmi College for Women "Rajamahendravaram.
- To bridge the gap between the requirements of the potential employers and education by providing skill-development programmes for the improvement of employability of the students.
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- The above goals will be accomplished by the activities such as educational visit, short-term training and internships.
- Recognise the mutual interest in the fields of training and development and dissemination of knowledge.

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Proposed modes of Collaboration

Smt.Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and HETERO DRUGS, Hyderabad, Telangana, India proposed to collaborate through the following:

- Cooperation and promotion of education, training and research in the areas of mutual interest.
- Any other appropriate mode of interaction agreed upon between Department of Chemistry, Smt.Kandukuri Rajyalakshmi College for Women, Rajamahendravaram and HETERO DRUGS, Hyderabad, Telengana.
- A specific plan will be worked out by the institute depending upon availability of resource.

TERMS AND CONDITIONS

Duration: This MOU is at will and may be modified by mutual consent of authorized officials from the list partners.

Coordinators: College and HETERO DRUGS, Hyderabad, Telengana will designate persons who will have responsibility for co-ordination and implementation of this agreement.

Signed in Duplicate: This MOU is executed in duplicate with each copy being an official version and having equal legal validity.

By signing below the institutes acting by their duly authorised Officer, have caused this memorandum of understanding to be executed effective as of the day and year first above written (i.e., from 01-10-2022) for a period of TWO years.

Principal 5.K.R.College for Women, Rajamahendravaram East Godavari- A.P

HETERO DRUGS Hyderabad Telangana,



Opp. T.T.D. Kalyana Mandapam, Danavaipeta, Rajamahendravaram, E.G.Dist. A.P. www.skrgdcwrjy.ac.in

Established 1968

E-mail : skrgdcwrjy@gmail.com

Dr. P. Raghava Kumari

M.Sc., B Ed., M.Phil., Ph.D. Principal

> To The Registrar, Adikavi Nannaya University. Rajamahendravaram

Sir.

Sub :- SKR Government Degree College (Women), Rajamahendravaram -Submission of Feedback Report 2022-23 Reg.

This is to submit that, as an institutional practice, SKR Government Degree College (Women), Rajamahendravaram which is under the jurisdiction of Adikavi Nannaya University, Rajamahendravaram collects feedback on college / curriculum from time to time from its stakeholders.

During the academic year 2022-2023, feedback was collected from students. teachers, parents and alumni. A copy of the feedback report is submitted to your office for your information.

Thanking you. Sir.



SIGNATURE OF THE PRINCIPAL

PRINCIPAL S.K.R. Government Degree College (Nomer* RAJAMAHENDRAVARAM Fast Godavari Dial., Andhra C

Feedback Report 2022-2023

For the academic year 2022-2023, feedback on the college functioning including teaching learning process was collected from the students, teachers, parents and alumni in online mode. For the students, a feedback form was designed with 20 questions on 20 parameters with 5 options namely – Strongly Agree, Agree, Neutral, Strongly disagree and Disagree.

179 responses collected from the students. Before collection, the purpose of feedback was explained to the students. If the students could not understand any parameter, the mentors explained the parameter and its importance. With the help of the faculty, the IQAC arranged for the analysis of the collected data; the analysis was tabulated and also presented in a graphical format. For the teachers, alumni and parents, a feedback form was customized with 10 questions covering different areas of the college. functioning. The analysis report reveals that:

 Stakeholders expressed their opinion that supports the students to prepare for competitive exams.

More Cultural activities are to be organized in the college

Howelad Co. IOAC Coordinator

IQAC Co-ordinator S.K.R. Government Degree College (Women) RAJAMAHENDRAVARAM. East Godavari Dist., Andhra Pradesh

SKR GOVERNMENT DEGREE COLLEGE (WOMEN),

Action Taken Report on Feedback -2022-2023

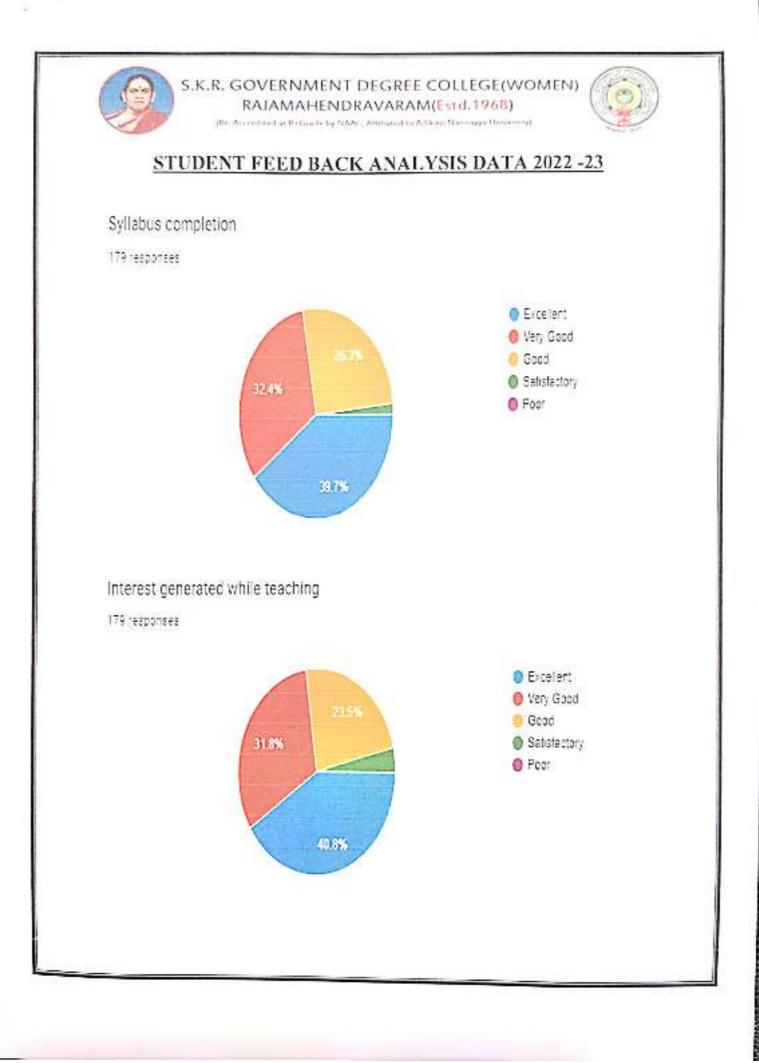
The feedback report for the academic year 2022-2023 was placed before the staff council meeting chaired by the principal of the college. The council discussed the report in detail. For all the positive feedback about the teaching learning process, the efforts of the teachers were appreciated. The meeting resolved to take the following measures to improve the overall functioning of the college.

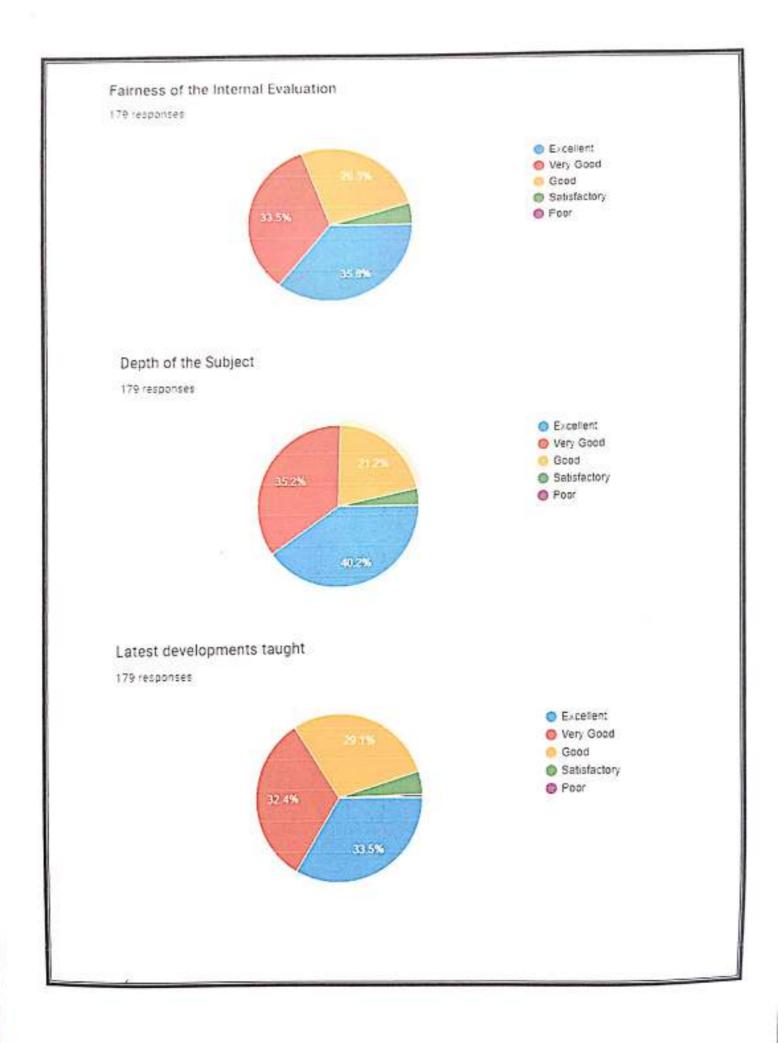
Student Centered Learning (SCL) practices in curriculum delivery and transaction were given much emphasis.

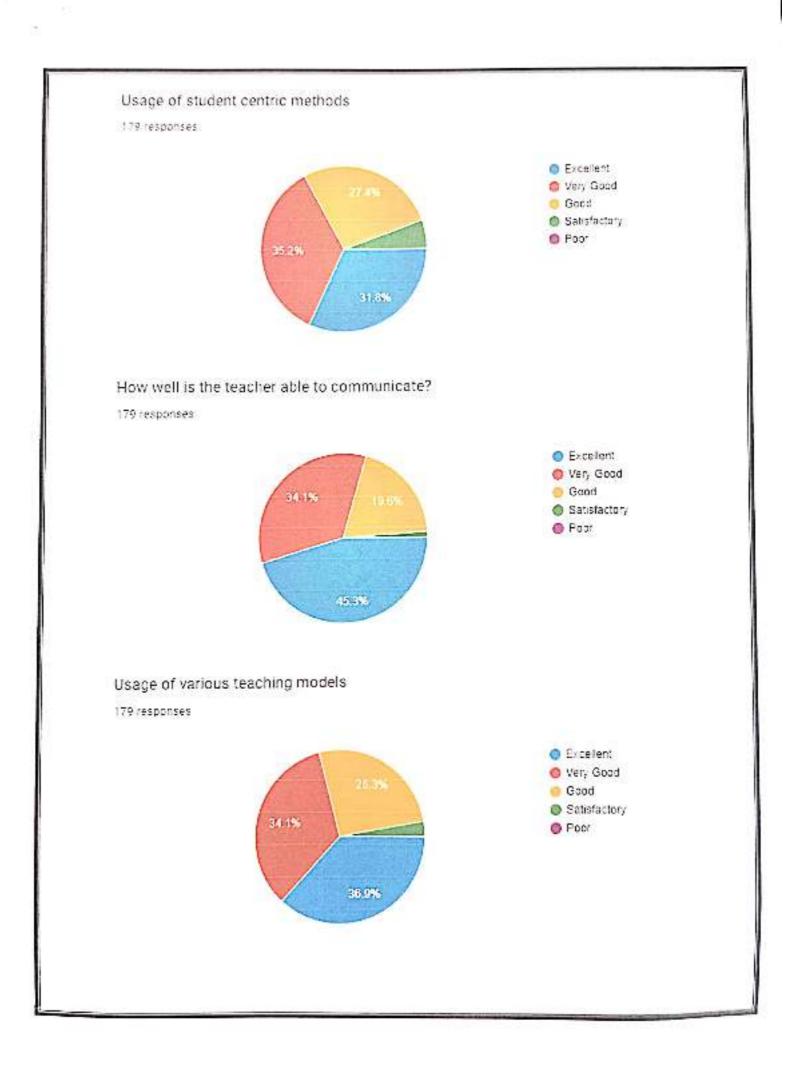
Based on the parents & alumnac feedback, PG coaching is continued in a more structured manner and offered support to the students seeking higher education.

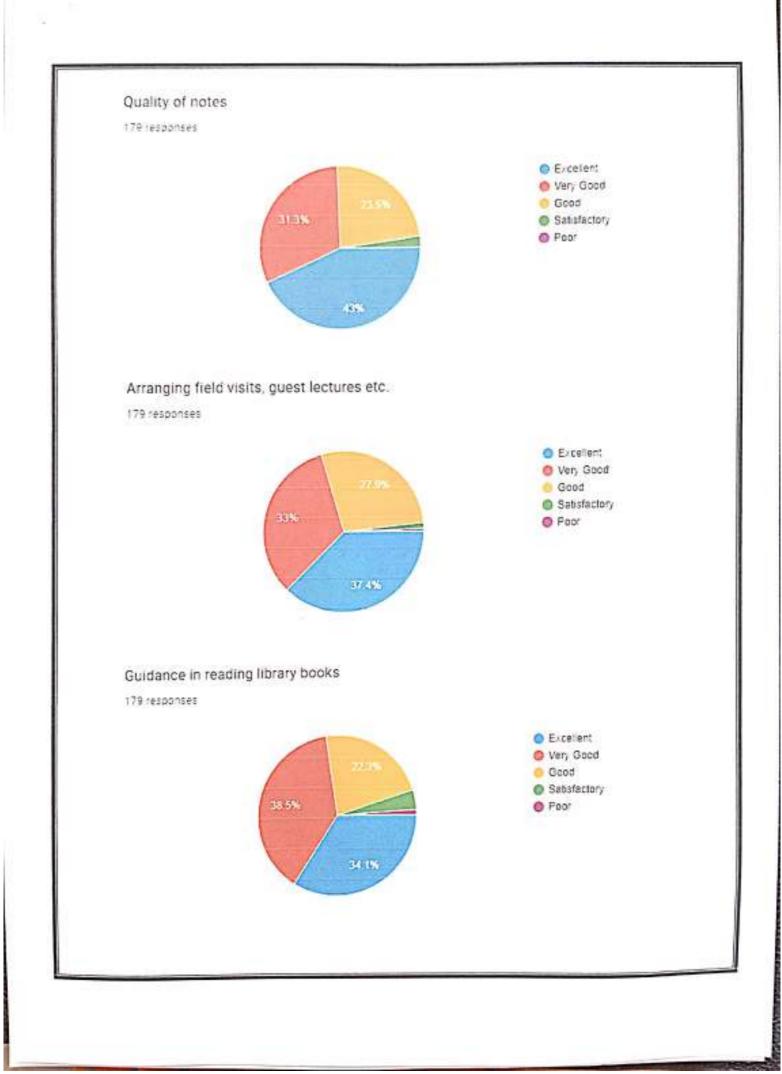
The mentors were specifically directed to provide emotional support to students and be accessible to them even out of the classroom, following the spirit of the Mentor Mentee System (MMS) in place.

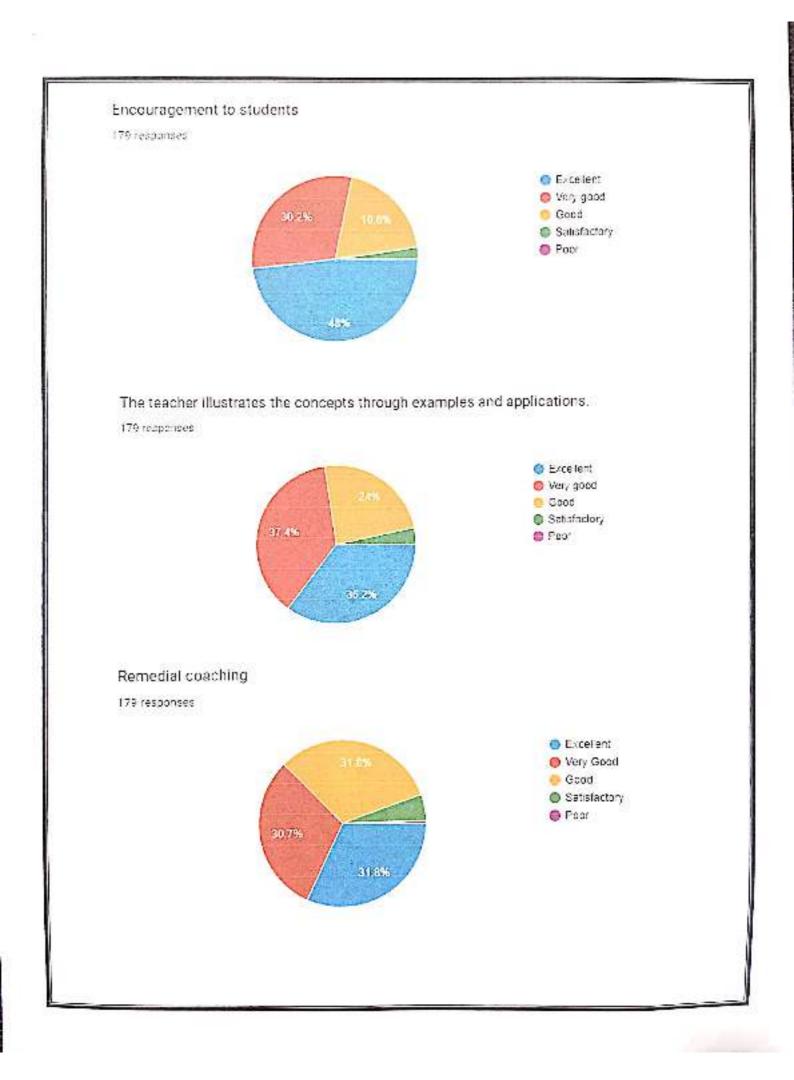
RINCIPAL .R. Government Begree College (Watard) RAJAMAHENDRAVARAM. East Godavari Dist., Andhra Pradesh

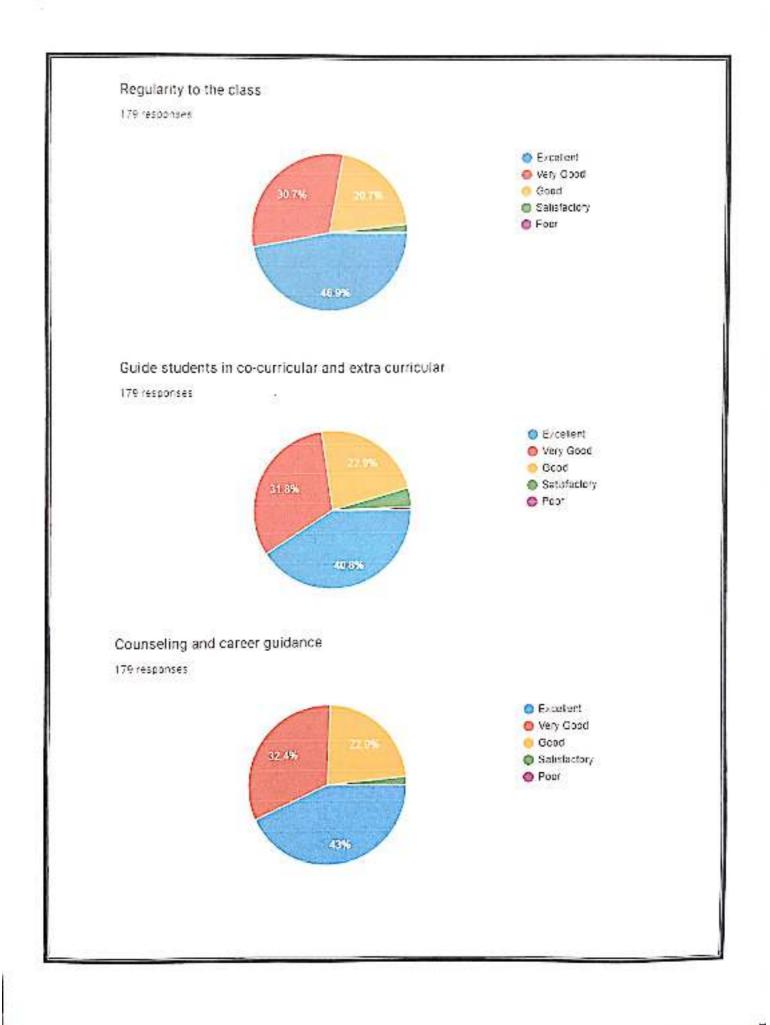


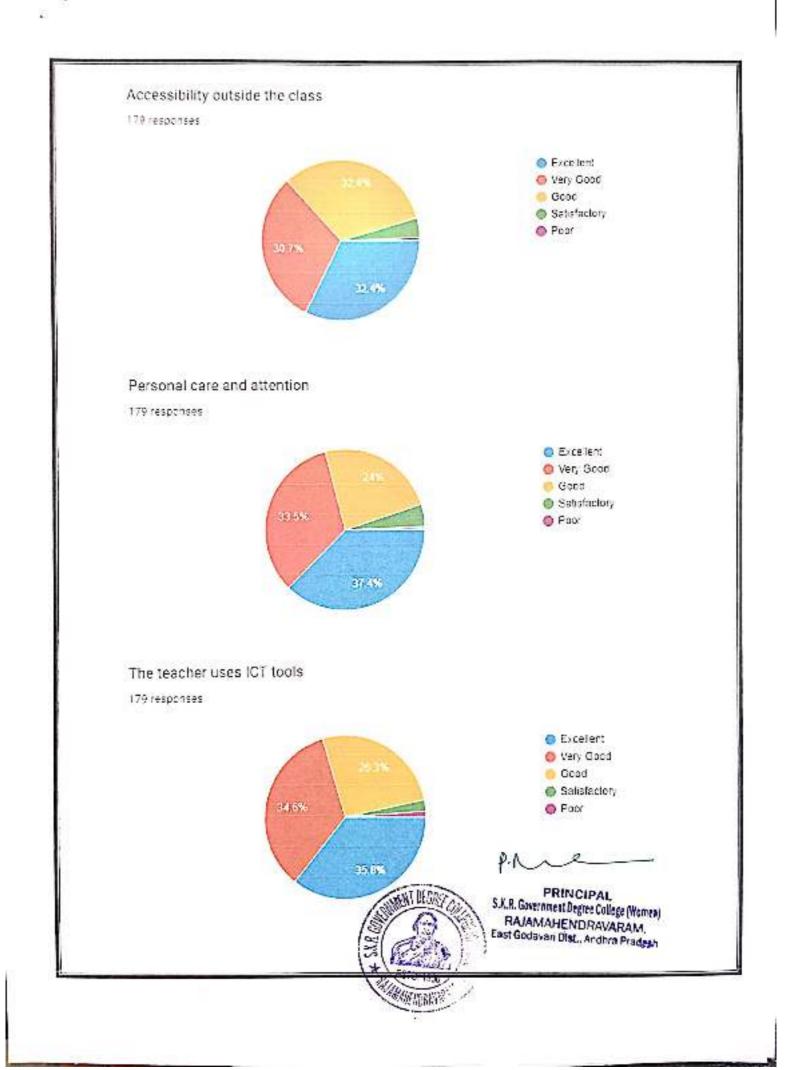


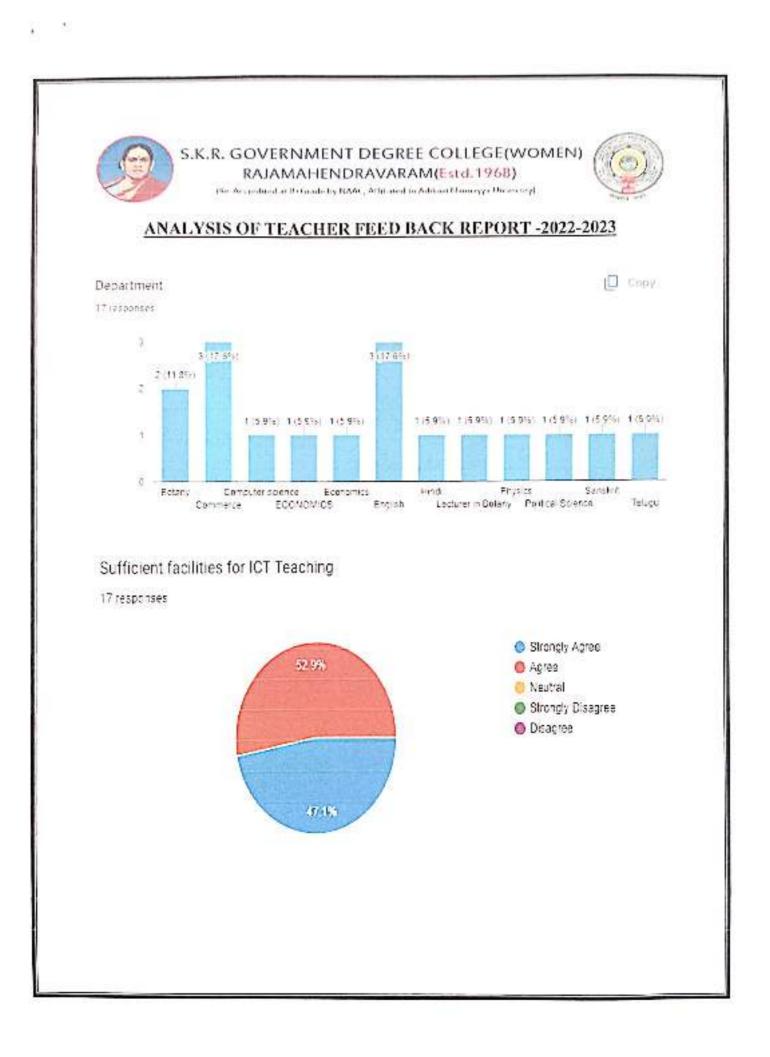


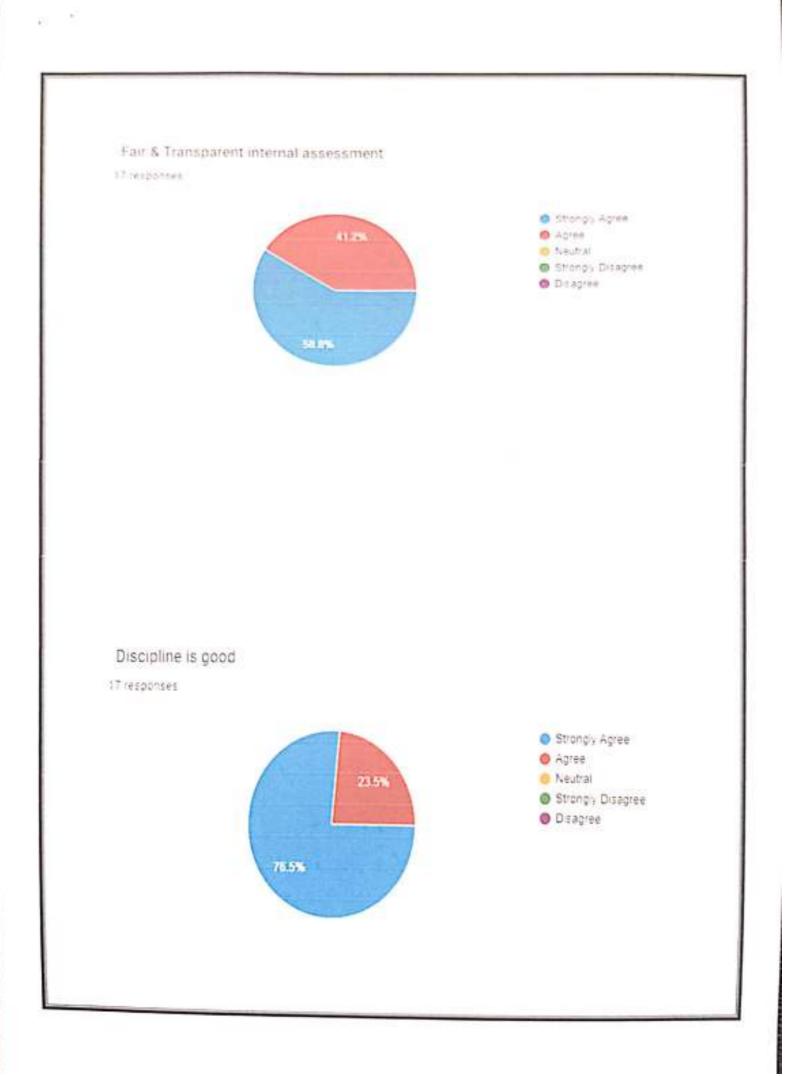


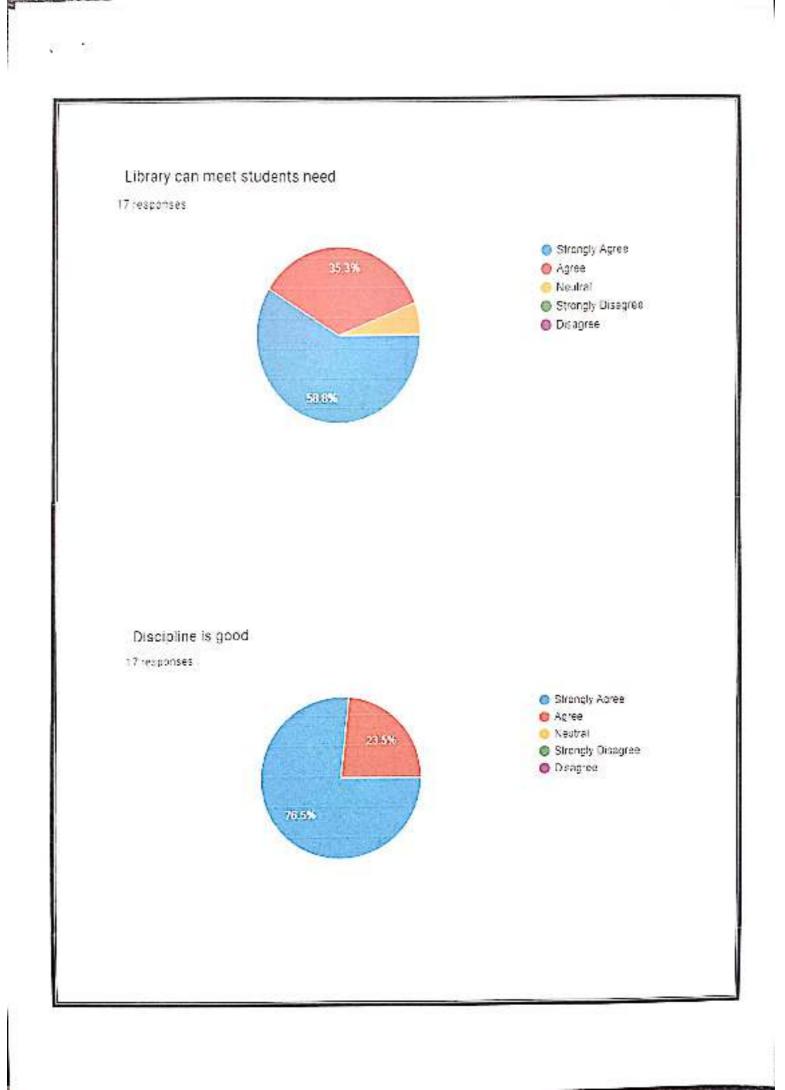


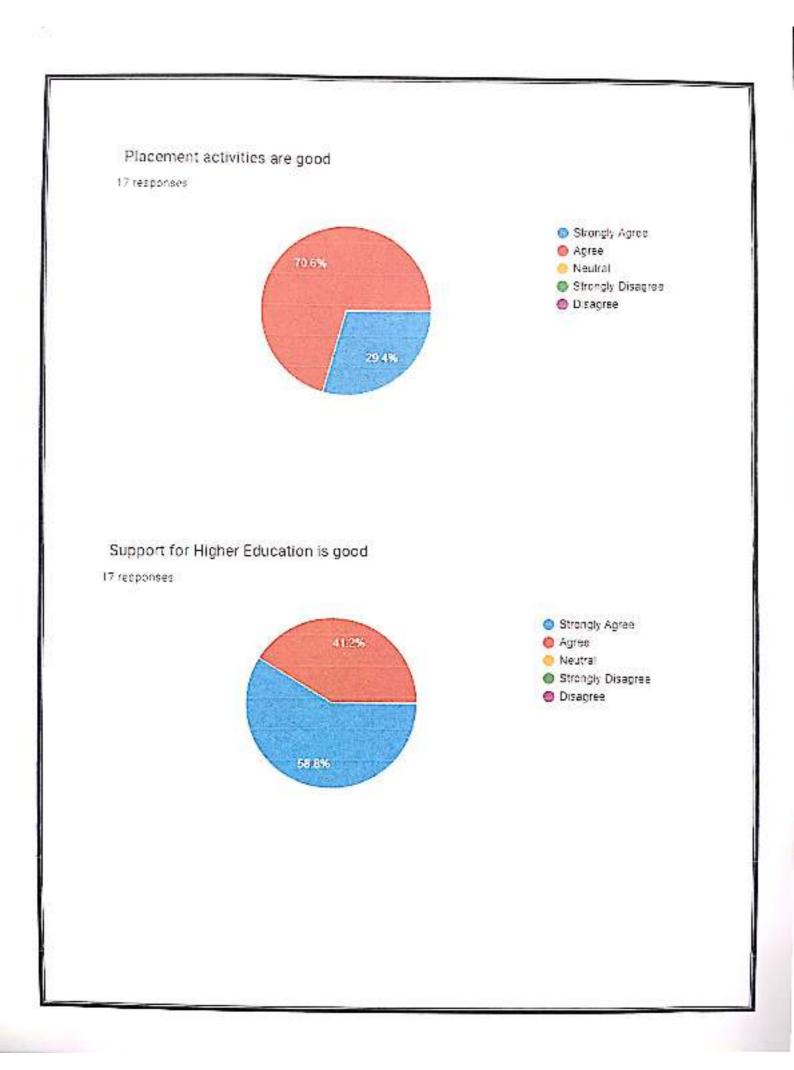


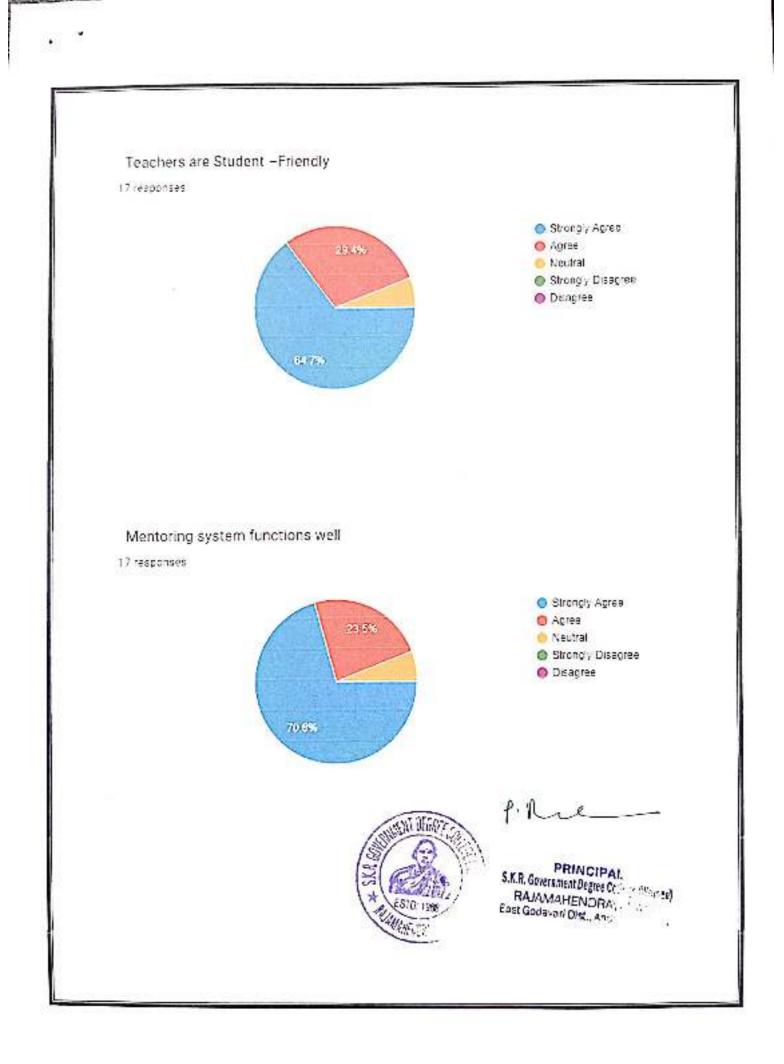


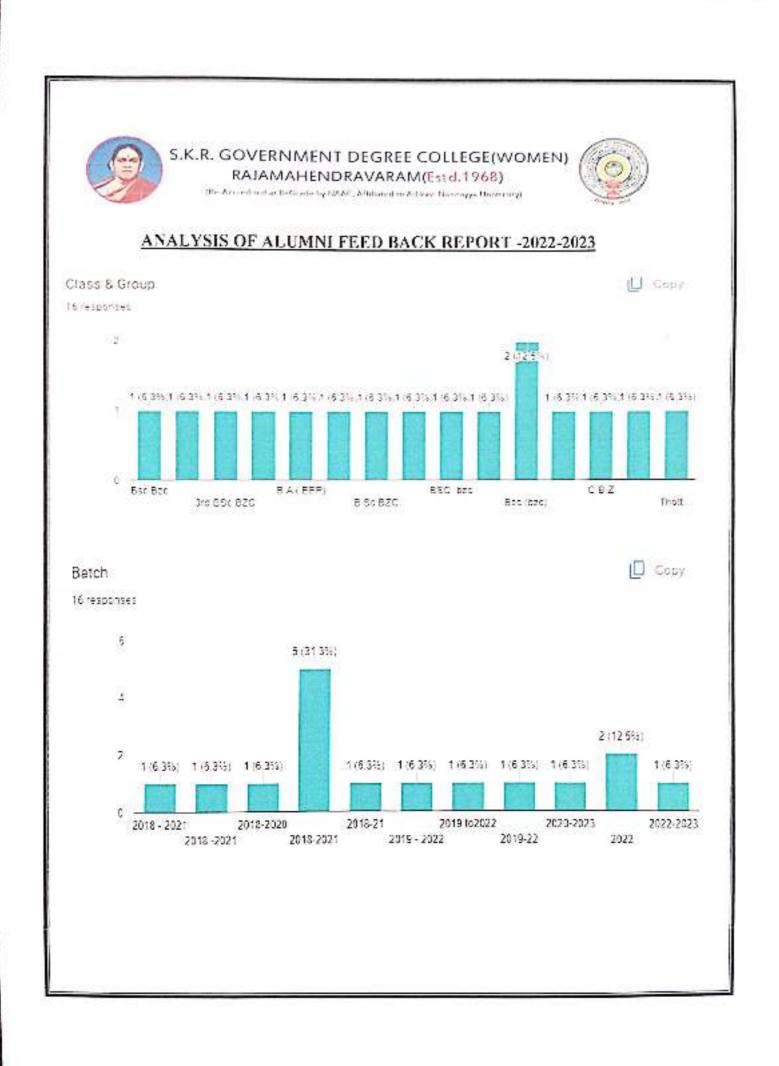






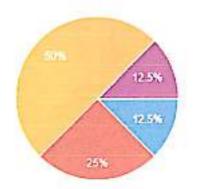






Sufficient facilities for ICT Teaching

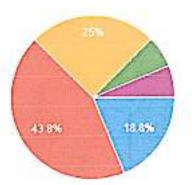
16 responses





Fair & Transparent internal assessment

16 responses





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