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Key Indicator	Lise of files' documents to be kept ready as a proof of Key Indicator	Information in support of the key indicator	Key Aspect Scores	Predetermine d Weightage (Wi) for Key Indientor	Grade Points	Key Indicator Wise Weighted Grade Points (KIWWGP) = KIGP X WI	KTW-WCP as per Acdomic Advisor's grading	Guidelines
	1-	CURRICULAR ASPECTS						
Curricular Planing and	Proposition and Implementation of	Course wise/Sem wise Recards for the						1)All five key indicators =3 Grade points/A
Implementation (for Autonomous	1. Annual Academic Curriculum Plan 2. Course Objectives & Outcomes	Academic Year	2×5- 10	10	o B 60	60		2)Any four key indicators =2 Grade points/B 3)Any two key indicators =1 Grade points/C 4)No indicator=0/D
Colleges - Efforts for Curriculum Desing and Development to be considered)	3. Teaching Diary 4. Lesson Plans	Course wise/Sem wise Records for the Academic Year	2x5= 10	30				
	5. Active Participation in BOS	Invitation Letter & Altendance	10	S			8	
	 Additional inputs related to Curricolum of the courses tsught 	a)Course wise/Sem wise additional inputs Reports	10		B 40	-		 All three key indicators =3 Grade points/A 2)Any two key indicators =2 Grade points/B- 3)Any one key indicator =1 Grade point/C 4)No Indicator=0/D
Curriculum Flexibility/Enrichment	 2.Value added courses offered & completed a)Certificate b)Diploma c)Any Online courses like MOOCs 	h)Report on Certificato' Diploma c)Any Online courses like MOOCs	2x5~10	20		40		
Feedback system	Feedback on Curriculum by Students a) Collected b) Analyzed c) Action taken	Course wise/Sem wise a)Reports of Feedback b)Analysis Reports c)Action taken Report	10	10	4	30		1)All three key indicators =3 Grade points/A 2)Any two key indicators =2 Grade points/B 3)Any one key indicator =1 Grade point/C 4)No Indicator=0/D
	II-TEACH	ING, LEARNING & EVALUATION	W	15 A 16 A 16				
Catering to Studient Diversity	 Report on grouping of students into Slow, Moderate and Advanced learners Course wase activities designed for Slow, Moderate and Advanced learners 	1.Course wise/Sem wise Reports with lists of students (Slow, Moderate and Advanced learners) 2.Course wise/Sem wise Actorities designed for Slow, Moderate and Advanced learners	10	20	А	20		 All three key indicators =3 Grade points/A Any two key indicators =2 Grade points/B Any one key indicator =1 Grade point/C
	 Report on Course wise Bridge Courses conducted Report on Course wise Remedial coaching conducted 	1. Course wise/Sem wise Reports on Bridge Courses conducted 2. Course wise/Sem wise Report on Remodial enaching conducted	3x5-10		4	20		4)No Indicator-0/D

Key Indicator	List of files' documents to be kept ready as a proof of Key Indicator	Information in support of the key indicator	Key Aspect Spares	Predetermine d Weightage (Wi) for Key Indicator	Grade Points	Key Indicator Wise Weighted Grade Points (KTWWGP) = KIGP X Wi	KIWWGP as per Acdemic Advisor's grading	Guidelines
Teaching-Learning Process	 Report on student centered methods implemented (Course wise) Report on implementation of ICT in teaching and learning (Course wise) or Report on implementation of Computer/Interact assisted learning (Course wise) Report on the Use of LMS tools (Course wise) Contribution for the development of LMS in the concerned subject Report on importance redemonical Tools used 	Course wise/ Sem wise Reports	50	50	ß	100		 1)All five 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
Teacher Profile and Quality	Report on Seminars/Conferences/ Workshops/ Guest Lectures organized Report on Participation in Seminars/Conferences/Workshops/ Guest Lectures/ Invited talks A wants and recognition	Reports and Certificates	30	30	ß	60		1)Any five 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=0/13
	1. Report on Formative Evaluation (CIF)	Department wise reports regarding	10.					1)All four key indicator Metrics ~3 Grade
	 Assignments-Critical, Innovative, text book and Internet based 	1. Mid exams, Seminar Reports, Assignment books, Projects and any other tools of Internal	10	1	A	90		points/A 2) Metrics 1, 2, 4 =2 Grade points/B 3)Metrics
Evaluation Process and Reforms	3. Involvement in Summative evaluation	Assessment 2. Departmental Internal Marks Register for	5	30	н	10		1, 2,3 =1 Grade point/C 4) Below two=0/D
	4. Maintaining Marks Register & Result Analysis register.	CIA verified by the Principal	5					
Student Performance and Learning Outcomes	 Announcement and Attainment of Course Outcomes Report on Student seminars/ Student demonstrations (Course wise) Report on activities like Quiz/ Group discussion/ Poster presentation (Course wise) Report on Field trips (Course wise) Report on Student Study projects (Course wise) 		5x6+30	30	A	90		 All five key indicators =3 Grade points/A 2)First KT Metric and any three other =2 Grad points/B 3)First KT Metric and any two other =1 Grade point/C 4) Below two=0/D

Key Indicator	List of Bies' documents to be kept ready as a proof of Key Indicator	Information in support of the key indicator	Key Aspert Scores	Predetermine d Weightage (Wi) for Key Indicator	Grade Points	Key Indicator Wise Weighted Geade Paints (KIWWGP) = KIGP X Wi	KIWWGP as per Ardemic Advisor's grading	Guidelines
	III-RESEARCE	, INNOVATIONS AND EXTENSION						
Funding obtained for Research	1. Minor Research Projects	Letter of intimation and award letters (For	5	1000	0.000	1922	-	1)All three key indicators =3 Grade points/A
	2 Major Research Projects	Current Year only Either Ongoing	10	20	D	0		2)Any two key indicators -2 Grade points/B
	3.Consultancy Projects	OR Completed)	5		1			3)Any one key indicator =1 Grade point/C
Research Publications and Awards	 Papers Published in Journals / Chapters published in edited volumes Books published as single author Books published as Co-Author Papers/Chapters published as Co-Author (Note: A maximum of 3 publications in Scopus/Web of Science/ICI or UGC -CARE Listed journals/Any book with ISBN shall be considered) 		10 15 10 5	60	с	10		 Any three key indicators =3 Grade points/ 2)Any two key indicators =2 Grade points/B 3)Any one key indicator =1 Grade point/C 4) No Indicator=0/D
	5.Research Guideship 6.Awards in recognition of research work		10 10					
	Academic Extension activities through DRC/ Faculty Outreach (Curticulum/ Skill/Domain related)	Reports in the NAAC format	10		C	10		 All three key indicators ~3 Grade points/A Any two key indicators ~2 Grade points/B Any one key indicator ~1 Grade point/C
Extension Activities	Involvement in activities related to community service a. Sensitising the students about the value of Community Service h. Organising the activity (A maximum of 5 Programmes resulting in Community Service like ODF/Swachh BharabUBA etc.)	Reports in the NAAC format	5+5	20	в	20		4)No Indicator=0/D
Functional MoUs /Collaborations with Govt and Non Governmental Organisations	 Collaboration with University/ Industry/NGO/ Any other Agency Consultancy offered Amount generated through Consultancy. 	MnUs - 5 puints Consultancy offered -10 Amount generated through Consultancy - 5 points	20	20	с	20		 1)All three key indicators =3 Grade points/A 2)Any two key indicators =2 Grade points/B 3)Any one key indicator =1 Grade point/C 4)No Indicator=0/D
	IV - USE OF INFRA	STRUCTURE & LEARNING RESOURCE	5		Contraction of the			
Physical facilities	Infrastructural facilities in the Department/Colleges a. Use of Digital Classrooms b. Use of Virtual Classroom c. Use of Labs d.Use of Library e. Nlist usage. I. Maintenance of Departmental Library	Log books related to usage	20	20	A	60		 Any four key indicators =3 Grade points/A 2)Any three key indicators =2 Grade points/J 3)Any two key indicators =1 Grade point/C 4) Below two Indicators=0/D

Key Indicator	List of files/ documents to be kept ready as a proof of Key Indicator	Information in support of the key indicator	Key Aspect Scores	Predetermine d Weightage (Wi) for Key Indicator	Grade Paints	Key Indicator Wise Weighted Grade Paints (KJWWGP) = KIGP X WI	KIWWGP as per Ardemir Advisor's grading	
	V- ROLE IN STU	DENT SUPPORT AND PROGRESSION						
Student Support	 Counseling of students as Mentor' Class teacher Student Profile Collection b: Semester wise updation and maintenance. Any other Study Material /Guidance a)Academic guidance for the advanced learner (offering suggestions/reference books) b)Handbolding the slow learners (offering study material' question banks) Guiding/Monitoring Students for CSP/Internship Organizing/Participation in Parent Teacher Meetings 	Reports in the NAAC format	20 10 10 10	50	A	150		1)All Four key indicators –3 Grade points/A 2)Any Three key indicators –2 Grade points/I 3)Any Two key indicator –1 Grade point/C 4]Below two=0/D
Student Progression	Report on Programme/Course wise students' progression to a)Higher Education b)Employment c)Hotrepreneurship	Reports in the NAAC format	10 10 16	20	в	60		1)All three key indicators =3 Grade points/A 2)Any two key indicators =2 Grade points/B 3)Any one key indicator =1 Grade point/C 4)Ne Indicator=0/D
	VI-ROLE IN	INSTITUTIONAL GOVERNANCE						
Participstion in Institutional Governance and Leadership	 a)Contribution to Departmental Vision & Mission and Departmental Action Plan b)Participation in different institutional committees and preparation of committee reports c)Participation in different institutional activities that fucus on value based education d)Contribution to IQAC/quality initiatives 	Reports in the NAAC forms:	4x10	-40	A	120		 1)All Four key indicators =3 Grade points/A 2)Any Three key indicators =2 Grade points/E 3)Any Two key indicator =1 Grade point/C 4)Below two=0/D
		VIL-BEST PRACTICES						
Best Practices	Identification and Contribution to a)The Departmental Best practices b)Institutional Best practices	Reports in the NAAC format	20	20	A	60		 All Two key indicators =3 Grade points/A 2)Any one key indicator =2 Grade points/B 3)No Indicator=0/D
	Total Grade points			500		020		

or & Signature of the Principal

PR

PRINCIPAL S.K.R. Government Degree College (Women) RAJAMAHENDRAVARAM. East Godoveri Dist., Andrea Pradosh



Name & Signatures of the Academic advisors

1) 2) 3)

S.K.R.GOVERNMENT DEGREE COLLEGE (W) RAJAMAHENDRAVARAM-East Godavari Dist. (A.P.)

Accredited at B+ Level by NAAC AFFILIATED TO ADIKAVI NANNYA UNIVERSITY

A. General Information :

			the second se
a)	Name	: Dr. M.Sunitha	
b)	Date of Birth	: 03.06.1980	the State
c)	Residential Address	: Krupadanam Heights, 47-4-3,	
		Gandhipuram-1	
		Rajamahendravaram-533103 (A.P.)	16.1
d)	Designation	: Lecturer and In-charge of the Department	
e)	Department	: Chemistry	
f)	Area of Specialization	: Applied chemistry	
g)	Date of Appointment	:	
h)	i) In the Institution	: 01/11/2003	
		01/11/0000	

ii) In the Present Post : 01/11/2003

B. Academic Qualifications:

Exam. Passed	Board/ University	Subject	Year	Division/ Grade Merit etc.,
High School	Board of Secondary Education, AP		1995	Ι
Higher Secondary or Pre-Degree	Board of Intermediate Education, AP	Bi.P C	1997	Π
Bachelor's Degree	AndhraUniversity, Vizag	B. Sc	2000	Ι
Master's Degree	AndhraUniversity, Vizag	M.Sc.	2002	Ι
Research Degree(s)	AndhraUniversity, Vizag	M.Phil	2010	
	AndhraUniversity, Vizag	Ph D	2017	

C.Research Experience & Training :

Research Stage	Title of Work/ Theses	University where the work was carried out
M. Phil or equivalent	Synthesis, Characterisation And Catalytic Study Of Spinal Copper Ferrite	Andhra University, Vizag

Ph.D.	Visible Light Photo Catalytic Degradation Studies Of Selected Organic Dyes With AWO4 (A= Cu, Ba, Ni, Co) – GO Nano Composites	Andhra University, Vizag
Publications	07	
Training (Please Specify)	Orientation workshop on OER, E- content Development, MOOCS and MOODLE from 19/11/2018 to 24/11/2018	E&ICT Academy, NIT Warangal
	Orientation programme	UGC Staff Academy, Vizag
	Three day training programme on LMS and Internship 6/2/2023 to 8/2/2023	Arts College(Autonomous), Rajamahendravaram
	FDP on English Medium of Instruction 19/06/2023 to 24/06/2023	Arts College(Autonomous), Rajamahendravaram

D.Teaching Experience:

Courses Taught	Name of the University / College / Institution	Duration
U.G	S.K.R. Government DegreeCollege (W), Rajamahendravaram	Since November 2003 till the date
Total Teaching Experience	Under Graduate	20 years

a.Teaching Methods	Blended-Lecture method,
	Discussion method. Bilingual
b.Laboratory Experiments	Demonstrative & hands on Activities
c. Evaluations Methods	summative evaluation, formative, evaluation, and diagnostic evalution
d.Preparation of Resource Material Laboratory Manuals	materials and laboratory Manuals were prepared for IBSc& III BSc
e.Remedial Teaching/ Student for	1)Taking Remedial classes slow learners
Counselling (Academic)	2) Also undertaking Students
F.Extension Work/ Community	Counselling in respect of theiracademic matter
G. Co-Curricular Activities	Always taking a leading role in the organization of Seminars, GDs, Debates, Quiz, Elocution, GuestLectures, Industrial Visits, Chemistry Club
Students Welfare and Discipline	Always taking genuine interest in the problems of the students. Supporting the students financially to pay college tuition fee.Students discipline is ensured byChecking their dress code, Punctuality, regularity to the Classes and whether the students are adhering to the colleges by-laws

		Research	Publications		
S. No.	Name of the author/s	Title of the Paper	Name of the Journal	Year of Publication	ISBN /ISSN number
1	Dr.M.Sunitha	Greener One-pot Synthesis of Chromeno Oxazin and Oxazin Quinoline Derivatives and their Antibacterial Activity	International Journal of Advanced Engineering Research and Science (IJAERS)	May-17	ISSN: 2349- 6495(P) 2456- 1908(O)
2		Catalyst Free One-Pot Synthesis of Chromeno Quinolines and Their Antibacterial Activity	Scientific Research Publishing Green and Sustainable Chemistry,	Jul-17	ISSN Online: 2160-696X ISSN Print: 2160-6951
3		Visible Light Photocatalytic Degradation of Methylene Blue and Malachite Green Dyes with BaWO4-Go NanoComposite	International Journal of Environment, Agriculture and Biotechnology (IJEAB)	May-Jun- 2017	ISSN: 2456- 1878
4		Synthesis, Characterization and Visible Light Photocatalytic Degradation Study ofThiourea modified Nano Titania Composites	Journal of Applicable Chemistry (International Peer Reviewed Journal)	July-2018	ISSN: 2278- 1862
5		Visible Light Photocatalytic Degradation of Methylene Blue and Malachite Green Dyes with CuWO 4 –GO Nano Composite	Scientific ResearchModern Research in Catalysis Publishing	July-2018	2168-4499 ISSN Print: 2168-4480
6		Heterostructure composite of fewo4 / chitosan via hydrothermal for degradation of brilliant green dye and inactivation of pathogens	International Journal of Multidisciplinary Advanced Research Trends	Vol. X, Issue 2(2) (September - 2022),	ISBN_2349-

LIST OF PAPER PRESENTATIONS IN SEMINAR

5.No.	Name of the seminar	Place &Date	Title of the Paper
1	National level seminar on Medicinal and Aromatic plants and value added products	S.K.R.College for Women, Rajahmundry, 9 th &10 th Jan. 2009	Role of plants as antiseptics and disinfectants
2	National Seminar on Current Research Trends and Development inorganic Chemistry (CRTADIOS-2015)	Adikavi Nannayya University Campus, Rajahmundry 5™ & 6 th Oct. 2015	Nano ferrite catalysed onepot synthesis of Quinoline derivativesunder micro wave irradiation

3	National Seminar on	M.R.COLLEGE	Nano Cobalt Ferrite
	Recent Trends in	Vizayanagaram	Catalyzed One-Pot
	science and Nano		synthesis of poly hydro
	technology		quinoline derivatives
			through multi component
			Hantzsch condensation.
4	National Seminar on	Department of	CuFe2O4 nano particles for
	Resent Trends in	inorganic &	three component one-pot
	Chemical speciation,	Analytical	synthesis of -amino
	Kinetics and Nano	Chemistry, Andhra	carbonyl compounds
	Materials	University,	through Mannich
	(RTC5KN-2017)	Visakhapatnam. 3 rd &4 th March,2017	reaction.

TEACHING DIARY FOR THE YEAR 202

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Signature of the Lecturer

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TEACHING DIARY FOR THE YEAR 202

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Name of the Lecturer : Dh. H. Sco.	-Li
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Signature of the Lecturer

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TEACHING DIARY FOR THE YEAR 2022 - 2023

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Signature of the Lecturer

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Signature of the Principal

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		Subject :	chemist
ropic: Dilate solat	10NS	Paper :	7
Hours Required	7 hous		
Learning Objectives			
Previous Knowledge to be reminded			
Topic Synopsis			

number of atoms or particles or molecules present but not on their nations or magnitude.

at all concentrations and temperatures.

Osmosis: - The membrane that allows the passage of solvent molecules alone is called semipermeable membrane. The flow of the solvent through a semipermeable membrane from a dilute solution into a concentrated solution to known as comoris osmotic prensure: The hydrostatic prensure builtup on the solution which just balances the osmoris of prese solvent into the solution through a semipermeable membrane is setaken as osmotic prensure for

The external premove applied on the solution to prevent the osmosis of a solvent into solution separated by a semiperneable membrane is called osmotric premove.

The phenomenon of flowing solvent from a solution of higher concentration in to a solution of lower concentration when the two solutions are

Thrust areas	
Skill to be learnt by Student	
Examples/Illustrations	da an la
Additional Inputs	CONTRACT CONTRACT

Teaching Models used Teaching Aids used References cited Student Activity planned after the teaching Activity planned outside Plants mail anglates classes. Any other a guild a faire separated by a semipermeable membrane is known as Revenue - osmosio. Lowering of vapour pressure: The difference between the vapour peressure of pine solvent and that of solution is known as lowering of Vapour premove. Po-Ps PA Elevation in Boiling point :-The vapour premore of a solution is always lower than that of the pusie solvent at each temp. Hence the vapour pressure of the solution will be equal to the atmospheric pressure at higher temperature than that of pierre solvent. (T3-7) = STB The elevation of boiling point of a solution is directly proportional to the lowering of vapour Depsulsion in forcesing point: The fracting point of a solution is always less than the freezing point of pure solvent. The difference in the two toup. is known as Deparension in freezing point (ATF) ATE ~ AP Varit Hoff factor = Observed value of collegative property 1.509 Lecturer Incharge

Principal

TEA	CHING PLAN (SYNOPSIS)
Month: - Thene 23 TOPIC: Surga ce cho	Stolet .
Hours Required	shas.
Learning Objectives	dispension phase medium
Previous Knowledge to be reminded	phy vander weals bands. Aydrosarbar
Topic Symopsis	

Colloids play an essential note in various Industrial and national processes. They have unique properties due to the large subjace area, of the dispersed particles. Which can lead to interesting phonomene like Brownian notion. Additionally, phonomene like Brownian notion. Additionally, colloids find applications in fields such as medicine, food processing, connetics and materials science.

Coagulation of colloids also known as flocewlation, is a process where colloidal particles come together to form larger aggregates or clusters called flocs. This process leads to the destabilization and eventual separation of colloids from the legvid medium.

Coagulation occors when these nepulsive formes are overcome, and the particles are brought closer together. It is important to note that coagulithe is different from precipitation.

The Hardy-scholze neck, also known as the Tionic strength effect "is a prenciple in clemistry that describes the impact of ionic strength on the solubility and precipitation of ionic compand in solution.

Thrust areas	
Skill to be learnt by Student	
Examples/Illustrations	Action in the second
Additional Inputs	

Teaching Models used	AS INTERESTING AND ADDRESS OF A DESCRIPTION OF A DESCRIPR
Teaching Aids used	Ppt
References cited	cleat, El X aven and a state
student Activity planned after the teaching	Elect. E.L. & willen, 3.11 store charactery
Activity planned outside classes	
Any other	Although and have been and

of Tonic Mength (I) is nearbore of the concentration of Tonic in a solution and is calculated using the formula

I = 1 E cize > The prestection of colloids refors to the phenomenon where certain substances probuent the aggregation on coagulation of colloidal particles in a solution, there by stabilizing the colloidal system, without these protection, colloidal particles would tend to aggregate and form larger particles leading to the destabilization of the colloidal dispersion.

Coldnumber - It is the prostective power of a protective colloid & a stabilizing agent against congulation of flocculation of a colloid of dispersion. It was introduced by the prothesh charriest thomas It was introduced by the prothesh charriest thomas

grahan. The coagulation of the gold sol is induced by the oddition of an electrolyte, which neutralizes the charges on the gold nano positicles and reduces the charges on the gold nano positicles and reduces the electrostatic, repulsion between them, lecending the aggregation and precipitation. To aggregation and precipitation. A legher gold number indicates better

protection on Atabilization of the colloid. System by the protetive colloid.

Principal

H.South Incharge

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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			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
DEC	1	15	Group- III,V& V, Solid State, Gaseous State	10	(spile ?	1	Yes		300.00		1	ST TOWN	
	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		a Na Maria			56	で、
JAN	1	1	Group V, VI & VII, d-block elements & Solutions	A. Hores	Assignmen MiD-I	t 1	Yes				「	4	
-	1	1 1	5 Carboxylic acids an their derivatives	d New y	S. C. P. S. C.	E a Maria					Mel Sale	in the second	

34	VII	0.0	Atomic Spectroscopy	in pharma Industries	Control of	1	Yes		Contraction of	NL		1.00	
	B	06	Analysis of Water	Job Opportunities	1236-1.2	0.02		20000	Chemicals	Me. 3	10.000	-	
Ine	m	10	Applications of Spectroscopy		14	的些人	T THE REAL		Preparation of House hold	3		1.1.2	1
AAR	1	10	Dilute solutions	han-	and the state of the	16 T.			1. 31.	•	1.		
	B	12	Spectroscopy		ι. B	1	Yes		Station	1.2.2			
	B	12	Separation Techniques		Student Seminar	1	Yes		Chromatograp hic Techniques		46.6	a career	1.
		14	Spectroscopy	1.1.1	MID-II, Assignment	1	Yes	and and a second	no	1. S. 1		1	1
В	1	14	f-block elements, Ionic equilibrium,			1	Yes		Guest lecture		1		
	B	09	Column Chromatography		Γ		1 [T	-1			-1
	B	09	Treatment of Analytical data	As	Assignment MID-I	1		1	1	T	1	T	7

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

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"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



	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 Name of the course	S. Engage in simple and advanced analytical tools used to measure the different types of pollution 4.Knowledge about the energy crisis and different aspects of sustainability 5. Gain the knowledge of chemistre through theory and mactinals Course out comes
Semester		
Control	Hume of the boarde	Understand the basic concepts of p-block elements
Sem-1	Increasin and Divelocit Disoriety	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,
00	Opposite & Connect On	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
00000	an agains ar reason a	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
	Analytical Methods in Chemister 2	Comprehend the applications of atomic spectroscopy

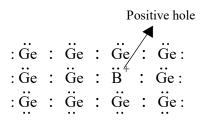
i) <u>n-type semi conductors</u> :- In these semi conductors, the electrons of the impurity cause conductivity by jumping from its band to the conduction band of the metal.

For example, if arsenic is added to Germanium crystal, some of the Germanium atoms are replaced by arsenic atoms. Germanium has 4 valence electrons and arsenic has 5 valence electrons. The 4 electrons of the arsenic forms 4 bonds with 4 germanium electrons and the remaining 5th electron of arsenic does not enter into the bond formation. This 5th electron carry electricity. In n-type semi conductors, the excess electron jumps from the donor impurity level to the conduction band.

				Mobile electrons		
••		••		🔺		
: Ge	:	Ge	:	Ğe∕: Ğe:		
: Ġe	:	Ġe	:	Ase: Ge:		
: Ge	:	Ge	:	Ge : Ge:		
••		••		•• ••		

n-type semi conductors

ii) <u>p-type semi-conductors :-</u> These type of semi conductors, conduct electricity due to movement of positive holes. For example, if Boron is added to Germanium crystal, p-type semi conductors are formed. Germanium has four valence electrons and Boron has three valence electrons. When Boron is added to Germanium crystal, the Boron atoms replace some of the germanium atoms and forms bonds with germanium atoms. Due to the shortage of one electron for bond formation, positive holes are created in the crystal. These positive holes attract neighbouring electrons. Thus these become conductors. In these crystals, electrons move in the direction of the opposite to the direction of positive holes.



p-type semi conductors

<u>COLLOIDS</u>

Q... What are Lyophilic Colloidal Solutions ?

These are liquid loving colloids. Those colloidal solutions, in which the dispersion phase shows affinity towards the dispersion medium, are called Lyophilic Colloidal Solutions.

Ex :- Starch Solution.

In the Lyophilic Colloidal Solutions, if the dispersion medium is water, the resultant colloidal solutions are known as Hydrophilic Colloidal solutions.

Lyophilic Colloids are reversible and stable.

Q... What are Lyophobic Colloidal Solutions ?

These are liquid hating colloids. Those colloidal solutions, in which dispersion phase does not show any affinity towards dispersion medium, are called Lyophobic Colloidal Solutions.

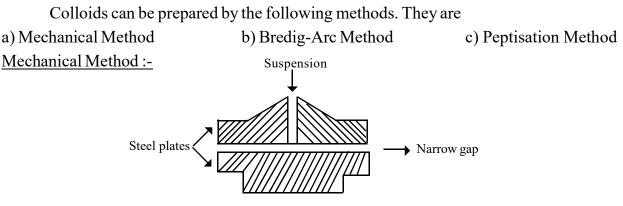
Ex :- Gold Solution.

In the Lyophobic Colloidal Solutions, If the dispersion medium is water, the resultant colloidal solutions are known as Hydrophobic Colloidal Solutions. These are irreversible and unstable.

Lyophilic Colloidal Solutions Lyophobic Colloidal Solutions 1. These can be prepared by direct mixing 1. These can not be prepared by direct mixof dispersion phase and dispersion medium ing of dispersion phase and dispersion medium. These are prepared in Colloidal mills. 2. These are stable 2. These are unstable 3. These are reversible 3. These are irreversible 4. The particles present in the Lyophilic 4. The particles in the Lyophobic Colloids Colloidal solutions are chargeless or may are charged. possess little charge. 5. These Colloids need larger amount of 5. These Colloids need less amount of elecelectrolyte for coagulation. trolyte for coagulation. 6. These may or may not show electrical 6. These show electrical properties. properties.

Q... Write the Differences between Lyophilic and Lyophobic Colloidal Solutions.

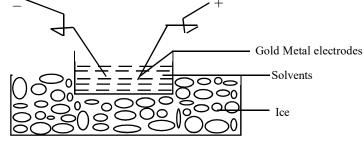
Q... How are Colloids Prepared ?



Colloidal mills are used in this method. The mill consists of two steel plates with a narrow gap between them. These plates rotate in opposite directions by using a belt.

In this method, first the substance is powdered and mixed with the dispersion medium to get suspension. This suspension is fed into the narrow gap between the steel plates. The particles present in the suspension are cut to size of the colloidal particles by the rotation of steel plates. Thus, colloidal solutions are prepared in this method.

Bredig-Arc method :-

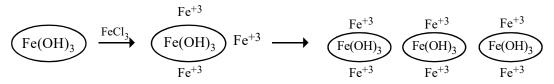


In this method, metal sols are prepared. The metal rod whose colloidal solution is to be prepared is kept in the vessel containing the solvent. This vessel is kept in the outer tank containing ice. When an electric arc is generated, the metal rods directly goes into the vapour state and condense in the solvent giving colloidal size particles. Thus metal sols are prepared. <u>Peptisation method :-</u>

The conversion of a precipitate into colloidal size particles by the addition of an electrolyte having a common ion is known as Peptisation. The electrolyte used for this purpose is known as Peptising agent.

When the electrolyte is added to freshly prepared precipitate, the precipitate adsorbs common ion present in the electrolyte on its surface. Due to adsorption of ions of same charge, repulsions develop between the ions present on the surface of the precipitate. As a result, the precipitate is disturbed and gives colloidal size particles. In this way, colloidal solutions are prepared in this method.

Ex :- Ferric hydroxide colloidal solution is prepared by adding ferric chloride to the ferric hydroxide precipitate. In this preparation, FeCl₃ is used as Peptising agent.



Q... How are Colloids Purified?

In the preparation of colloidal solutions, excess amount of electrolyte may be used. This excess amount of electrolyte may act as an impurity in the colloidal solution. These impurities are removed by the following methods.

a) Dialysis b) Ultrafiltration c) Ultra centrifugation Dialysis :-

Dialysis is a technique used for the purification of colloids. The membrane used for this method is known as "Dialyser."

The principle involved in this technique is "impurities can pass through parchment paper bag where as colloidal particles cannot."

In this technique, the colloidal solution which is to be purified is kept in a parchment paper bag. It is suspended in a tank containing circulating water. After this arrangement is made, the impurities diffuse through parachment paper bag leaving colloidal particles in the bag. If the impurity in the colloidal solution is an electrolyte. The process is accelerated by the application of electric field. Under the influence of electric field, the ions present in the electrolyte migrate to oppositly charged electrodes placed outside the bag. This process is known as "Electrodialysis."

<u>Ultra filtration :-</u>

In this process, ultra filter papers are used. These papers are prepared by soaking ordinary filter paper in the gelatin solution and hardening by formaldehyde solution. The following arrangement is made with this ultra filter paper.

The impure colloid is kept in the vessel fixed with a piston. Then, pressure is applied on the impure colloidal solution, the impurities present in the impure colloid diffuse through the ultra filter paper, leaving pure colloidal solution in the vessel.

<u>Ultra Centrifugation :-</u>

In this method, colloids are purified by gravitational technique.

Q... Discuss about the Properties of Colloids.

Colloids show the following Properties.

a) Tyndal Effect (optical property) :-

The scattering of light by the colloidal particles is known as Tyndal effect.

When a beam of light is passed through a true solution, it can not be seen unless the eye is kept in the direction of the path. But, when the same beam of light is passed through the colloidal solution, it appears as a bright streak. This phenomenon is called tyndal effect and the streak of light is known as tyndal cone. Tyndal effect is due to the scattering of light by the colloidal particles.

Reasons for the Tyndal effect :-

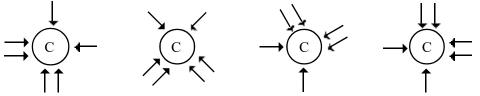
a) The colloidal partcles have enough surface to scatter the light.

b) The diameter of the colloidal particle is more than the wavelength of the light used.

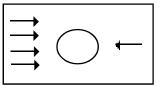
b) The difference between the refractive index of dispersion phase and dispersion medium is high.

b) Brownian movement (Kinetic property) :-

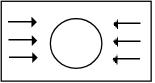
Continuous, rapid, zig-zag motion of the colloidal particles in the colloidal solution is known as Brownian movement. Robert Brown observed the constant motion of the pollen grains in the aqeous solution. This phenomenon is known as Brownian movement. Similarly, when colloidal solutions are observed, continuous, rapid and zig-zag motion of the colloidal particles in all the directions are found. This movement is called Brownian movement.



Brownian movement is due to the imbalanced collisions made by the molecules of the dispersion medium on the colloidal particles. As a result, the colloidal particles acquire kinetic energy so that, the colloidal particles move randomly in the solution. As the size of the colloidal particle increases, the brownian movement decreases because imbalanced collisions become balanced collisions. That is why, brownian movement is not observed in the suspension.



Imbalanced collisions



Balanced collisions

c) Electrophoresis (electrical property) :-

The migration of the colloidal particles towards one of the two electrodes under the strong electric field is known as Electrophoresis.

In this process, a 'U' type tube is taken. It is partly filled with a colloidal solution. It is covered with water. The vessel is fitted with two platinum rods. One acts as cathode and the other acts as anode. The level of the colloidal solution is noted. When the electrical field is applied, the collidal particles move towards one of the two electrodes. This type of movement of colloidal particles under the strong electric field is known as "Electrophoresis."

The migration of the colloidal particles towards one of the electrodes depends upon the charge on the colloidal particles. Negatively charged particles migrate towards anode. It is indicated by the rise in the level of the colloidal solution in the limb containing platinium anode. Positively charged colloidal particles migrate towards cathods. This is indicated by the rise in the level of the colloidal solution in the limb containing platium cathode. d) Electrosmosis (Electrical property) :-

The migration of dispersion medium towards one of the electrodes under the strong electric field is known as "Electrosmosis."

In this process, a 'U' type tube is taken. It is fixed with two membranes, M and M'. The colloidal solution is kept between the membranes. The remaining portion of the vessel is fitted with water. The vessel is fitted with two platinum electrodes. One acts as cathode and the other acts as anode. The original level of the solution in the limbs are noted. When strong electric field is applied, the level of the solution in one of the limbs is rised due to migration of dispersion medium towards one of the electrodes. This type of migration of dispersion medium of the colloidal solutions towards one of the electrodes under the strong electric field is known as Electrosmosis.

e) Coagulation (or) Flocculation :-

The conversion of colloidal state into suspension state is known as Coagulation Or Flocculation.

The colloidal particles present in the solution are charged. When an electrolyte is added to the colloidal solution, the colloidal particles present in the solution, attract oppositely charged ions of the electrolyte. As a result, the charge present on the colloidal particles is neutralised. Hence, the colloidal paticles come closer and form precipitate. This phenomenon is known as "Coagulation."

Ex :- Ferric hydroxide colloidal solution is coagulated by the addition of aluminium sulphate. The sulphate ions of the aluminium sulphate neutralise the positively charged ferric hydroxide particles. As a result, coagulation takes place.

The ion which coagulate the colloidal solution is known as Flocculation ion. According to Hardy-Schulge rules, the higher the charge of the flocculating ion, the higher is its flocculating power.

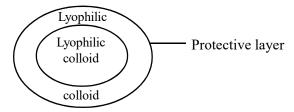
For example, $Al^{+3} > Mg^{+2} > Na^{+}$

 $[Fe(CN)_6]^{-4} > PO_4^{-3} > SO_4^{-2} > Cl^{-1}$

The minimum amount of electrolyte which is to be added to the colloidal solution for causing coagulation is known as Flocculation value. It is expressed in milli moles/lit. <u>Protection of Colloids :-</u>

The prevention of coagualtion in the Lyophobic colloids by the addition of a lyophilic colloids is known as protection of colloids.

Lyophilic colloids are stable and resistant to the formation of precipitate, when an electrolyte is added. Unlike lyophilic colloids, lyophobic colloids are unstable and coagulate on addition of an electrolyte. If a lyophilic colloid is added to the lyophobic colloid, lyophobic colloids does not form precipitate on addition of an electrolyte. This is known as protection of colloids. Lyophilic colloids by forming a protective layer around the lyophobic colloids prevent coagulation in the lyophobic colloid when an electrolyte is added.



Lyophilic colloids used for such pupose are known as Protective Colloids.

Ex :- Gold sol is precipated by the addition of NaCl electrolyte, If gelatin is added to gold sol before the addition of NaCl, precipitate is not formed. Therefore, gelatin is a protective colloid

Q... Define Gold number.

Lyophobic colloids are unstable. They give precipitate on addition of an electrolyte. If a lyophilic colloid is added to the lyophobic colloid, the formation of precipitate is prevented. Lyophilic colloids used for such purposes are known as Protective Colloids. The protecting power of all lyophilic colloids is not the same. The protecting power of lyophilic colloids is measured in "Gold number". It is defined as "the weight in milligrams of a protective colloid which prevent the coagulation in 10 ml.of Gold sol by the addition of 1 ml of 10 % NaCl solution." Smaller the Gold number for a colloid, greater is its protecting power.

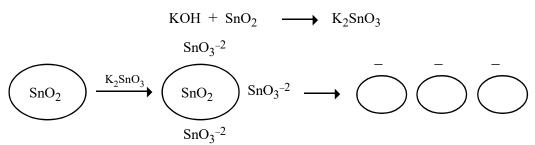
The gold number of Gelatin is 0.005 - 0.01 mg.

Q... Explain the Origin of charge on colloids.

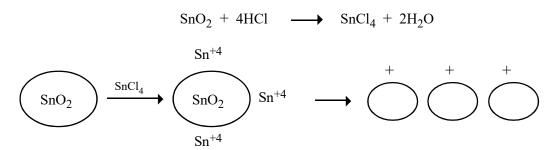
The colloidal particles are charged i.e, they possess either positive or negative charge. The origin of charge on colloidal particles is due to preferential adsorption of either positive or negative charged ions on the surface of the colloidal particles.

Ex :- Fe (OH)₃ colloidal solution is prepared by peptisation with FeCl₃. The colloidal particles of Fe (OH)₃ colloidal solution carries positive charge due to preferential adsorption of Fe⁺³ ions of FeCl₃ on the surface. Similarly, colloid particles of As₂S₃ solution possess negative charge due to preferential adsorption of sulphide (S⁻²) ions of H₂S on the surface of As₂S₃ particles.

The particles of the colloidal solution, formed by the peptisation of stannic oxide (SnO_2) with KOH, carries negative charge due to preferential adsorption of SnO_3^{-2} ions formed by the reaction between KOH with a small amount of SnO_2 .



The particles of the colloidal solution, formed by the peptisation of SnO_2 with HCl, carries positive charge due to preferential adsorption of Sn^{+4} ions formed by the reaction between HCl and a small amount of SnO_2 .



Q... What are Emulsions ? How emulsfying agent stabilise the emulsion.

Emulsions are the colloidal solutions formed by the liquid dispersion phase and liquid dispersion medium.

Ex :- 1) Milk is an emulsion made of water and liquid fat.

2) Cod liver oil is an emulsion made of water and oil.

Emulsions are of two types :-

a) Oil in water type (o/w) b) Water in oil type (w/o)

Oil in water type emulsions :-

In these type of emulsions, oil is dispersion phase and water is dispersion medium. Ex :- Milk, Vanishing cream etc.,

Water in oil type emulsions :-

In these type emulsions, water is dispersion phase and oil is dispersion medium Ex :- Butter, Cold cream etc.,

The two types of emulsions can be distinguished by following methods.

a) <u>Dye method :-</u>

In this method, a small amount of dye, which is soluble in oil, is added to the emulsion. If the emulsion is water in oil type, then the emulsion take up the colour of the dye and appear as a coloured solution. If the emulsion is oil in water, the solution remains in its orginal colour.

b) Conductivity :-

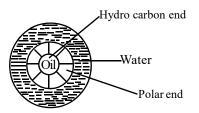
The electrical conductivity of oil in water emulsion is higher than that of water in oil emulsion. Basing on this concept the types of emulsion are identified.

Emulsifiers or Emulsfying agents :-

An emulsion is made of two immiscible liquids. Hence, it is stable for a short period. On long standing the two liquids get seperated. In order to get stable emulsions, it is necessary to add another substance. This substance is known as "Emulsifier or Emulsfying agent." Ex :- Water and Kerosene form a stable emulsion by the addition of soap solution. Here, soap is an emulsifier.

The emulsifier consists of a polar group and a hydrocarbon group at its chain ends. The polar end dissolves only in water and hydrocarbon end dissolves only in oil.

Emulsifier, by dissolving its polar end in water and hydrocarbon end in oil reduces interfacial tensions between the two immiscible liquids and facilitates easy mixing of two immiscible liquids.



Q... What is Zeta Potential ?

The difference in the potential between a fixed layer and a mobile layer at the site of the colloidal particle is known as "Zeta Potential."

During the peptisation process, an electrolyte is added to the precipitate. The precipitate adsorbs one of the ions and form a double layer. The double layer consists of two layers. They are fixed layer and mobile layer.

Fixed layer :-

This layer is fixed on the surface of the solid. It consists of either +ve or -ve ions. <u>Mobile layer :-</u>

This is also called diffused layer. This is diffused in the dispersion medium. It consists of both +ve and -ve ions. But the net charge on both layers is zero.

The existance of oppositely charged ions in the fixed and diffused layers of double layer generates a potential difference between two layers. This potential difference is known as Zeta Potential.

Ex :- When stannic oxide (SnO_2) is peptised with KOH fixed layer is formed with stannate ions and mobile layer is formed with both potassium and stannate ions.

Q... Explain Donnan membrane equilibrium state

When two electrolytes having a common ion are seperated by a membrane, which is impermeable to one of the ions, the other ions diffuse across the membrane till an equilibrium state is established. At equilibrium state, though the concentrations of the diffusable ions vary on each side of the membrane, the product of the concentration of these ions is same on both sides of the membrane. This type of equilibrium state is known as "Donnan membrane equilibrium state."

Ex :- When Sodium chloride solutions of different concentrations are seperated by a membrane, which is permeable to all the ions, the ions diffuse through the membrane from one side to another side till an equilibrium state is established. At the equilibrium state, the concentrations of the diffusable ions (Na⁺, Cl⁻, etc.,) become same on both sides of the membrane.

Similarly, if Sodium chloride solution and sodium palmitate solution are seperated by a membrane which is impermeable to palmitate ions, the diffusable ions diffuse through the membrane till an equilibrium state is established. At the equilibrium state, though the concentrations of diffusable ions are different on either side of the membrane, the product of the concentrations ions of the diffusable ions on both sides is same.

Consequences of Donnan membrane equilibrium state :-

a) Red blood cells contain 1% NaCl due to Donnan membrane equilibrium state.

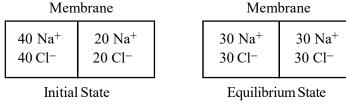
b) Donnan membrane equilibrium is the basis of dialysis

c) Due to this equilibrium, the osmotic pressures of the solutions on both sides of the membrane is different.

Q... Discuss the Applications of Colloids.

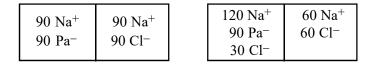
i) Purification of sewage water :-

Sewage water consists of colloidal size dust particles. These particles carry electric charge. Therefore, do not settle down easily. These particles are removed from the sewage water by the process of cataphoresis. In this process, sewage water is passed through a tunnel fitted with metallic electrodes maintained at high potential difference, when the current is applied, the dust particles migrate towards oppositely charged electrodes leaving pure water.



ii) Purification of Smoke :-

In the smoke, colloidal size carbon particles are dispersed. These particles are charged. These particles are removed from smoke by means of electrophoresis. In this process, smoke is passed through metal electrodes maintained at high potential difference. When the current is applied, the dust particles migrate towards charged electrodes, leaving pure air.



iii) Clotting of Blood :-

Blood is a colloidal solution. Due to colloidal nature of the blood, bleeding is stopped by applying FeCl₃ solution to the wound. FeCl₃ solution cause coagulation in the blood. Hence, bleeding is stopped.

iv) Purification of Water :-

It is done by coagulation. Impure water contains colloidal size clay particles. These can be removed by the addition of alum. The $A1^{+3}$ ions present in the alum coagulate colloidal size particles. So that, clay particles along with dust settle down at the bottom leaving the water in clean state.

v) Formation of delta :-

When the river water, containing charged clay and sand particles, meet the sea water containing NaCl and other salts. The charged clay and sand particles loss their charge and accumulate at the point of contact. As a result, delta is formed at the mouth of sea.

ARTIFICIAL INTELLIGENCE AS A NEW MARKETING STRATEGY

Dr. M. SUNITHA

Lecturer in Chemistry, S.K.R. Government Degree College, Rajamahenndravaram

ABSTRACT

One of the best technologies for predicting anticipated future behaviour is artificial intelligence (4), One of the best technologies for predicting anticipated fundation of audience solutions, fucling 20% of media According to Forrester, brands are flocking to AI-powered audience solutions, fucling, marketers According to Forrester, brands are flocking to At-power of Al and machine learning, marketers can get and advertising category growth in 2022. With the help of Al and machine learning, marketers can get and advertising category growth in 2022. With the help of understand what they need, and where they real insights real time and at scale, which helps them better understand was experiences, company efficiency re insights real time and at scale, which helps them beller user experiences, company efficiency, re looking for it. This gives them the ability to improve online user is not using AI-driven to be and looking for it. This gives them the ability to improve or advertiser is not using AI-driven solutions, and brand trust through true relevance. If a marketer or advertiser, new audiences, and productivity to brand trust through true relevance. If a marketer of nsights, new audiences, and productivity gains in enhance their campaigns, they are missing out on insights, new audiences, and productivity gains enhance their campaigns, they are missing out on will gain a long-term competitive advantage. Companies embracing AI and machine learning now will gain a long-term competitive advantage.

Keywords: Artificial intelligence, CRM, digital marketing, Machine learning, ROI,

In today's digital age, artificial intelligence (AI) has taken on a greater role in enhancing marketing performance. Data is created from almost every area of a business, from real-time marketing performance. Data is created from atmost every and in order to fully utilise this capacity, we need the computing strength of AI and machine learning.

Artificial intelligence (AI) in sales is the use of advanced algorithms and analytical toolat Artificial intelligence (AI) in sales is the use of the tasks and analyzing customer data automate and improve sales operations. By automating repetitive tasks and analyzing customer data automate and improve sales operations. automate and improve sales operations. By automating report deals. Additionally, machine leans AI can help sales teams work more efficiently and close more deals. Additionally, machine leans Al can help sales teams work more efficiently and the behaviour prediction and uncovering actionate tools can be used for sales forecasting, customer behaviour prediction in the following wave insights. Artificial intelligence is transforming digital marketing in the following ways

Real-time predictive modeling and trend prediction

For the majority of businesses, understanding trends is a tremendous difficulty. Market may better predict future events by employing real-time models built with AI and machine learning which is a unique combination of real-time, first-party data. It has the capacity to respond to the ng recent online events while also capturing ever-evolving customer behaviour, comprehenting consumer interest, and deducing consumer intent and builds unique predictive models for a campaign using cutting-edge machine learning techniques to achieve that level of sophistication at intelligence. Al creates media models for viewability, brand safety, and general models in addition these campaign models. Advanced machine learning methods, including neural networks and some circumstances, deep learning, are used for all of this modelling.

Personalized customer experience

In order to appeal to the burgconing digital consumer, brands must fast shift from traditional customer model to one that is centred on the online experience. Brands may a automation, machine learning, and artificial intelligence (AI), segmentation, and personais experiences to reach this next generation of consumers and change their perceptions, improve mis traffic, and boost sales.

Advanced audience analytics

Large amounts of data can be analysed using AI/ML to find patterns, which can an marketers understand the data and their potential clients. The Artificial Intelligence provide

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organized by Commissionerate of Collegiate Education, A.P., Mangalagiri.

Dr. C. Krishna PRINCIPAL, NRC-Govt College (A) Rajahmundry

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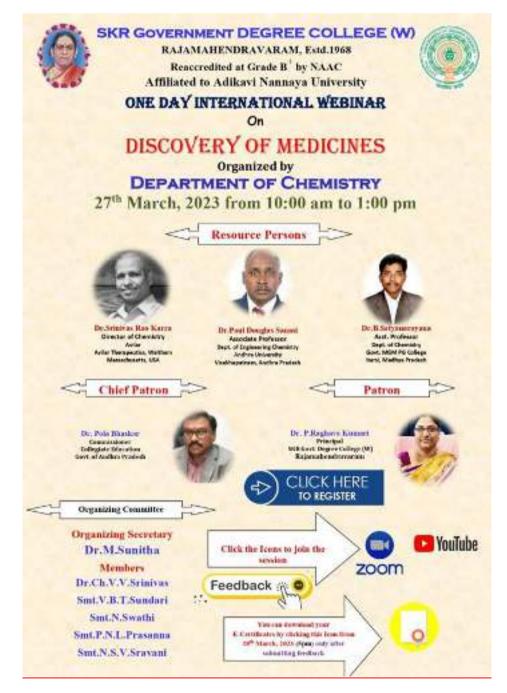
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Discovery of Medicines

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



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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

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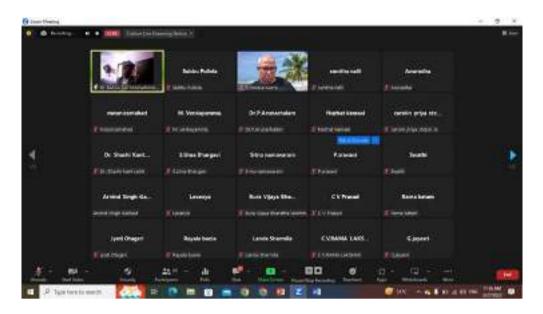
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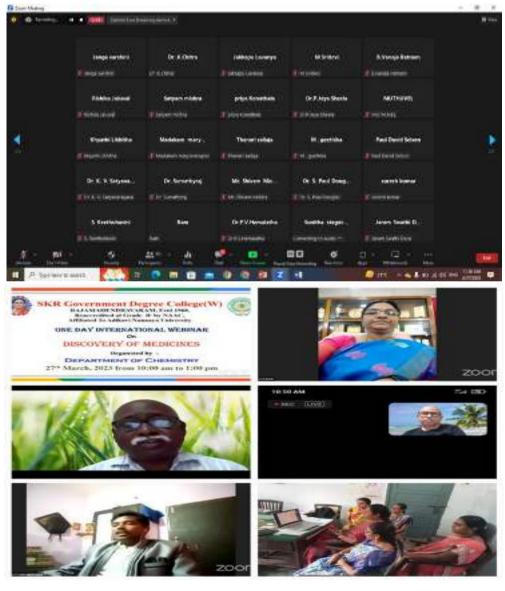
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MEMORANDUM OF UNDERSTANDING (MOU) BETWEEEN DEPARTMENT OF CHEMISTRY SMT.KANDUKURI RAJYALAKSHMI COLLEGE FOR WOMEN, RAJAMAHENDRAVARAM, ANDHRAPRADESH AND QREN LIFESCIENCES PVT. LTD. AMEERPET, HYDERABAD, TELANGANA, INDIA

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.

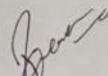
Coordinators: College and QREN LIFESCIENCES PVT.LTD., Ameerpet, Hyderabad, Telangana will designate persons who will have responsibility for co-ordination and implementation of this agreement.

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 Co. II

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

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 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.
- The two institutions will encourage direct contact and cooperation between students and experts in this field for the exchange of facilities and equipment.
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- 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.

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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,

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. Sion
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
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Poucher's Perfumes, Cosmetics and Soaps

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10th Edition

Edited by

Hilda Butler Editor and Consultant to the Cosmetic Industry

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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.

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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

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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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W.A. Poucher's influence on the early cosmetic industry 9

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

W.A. Poucher's influence on the early cosmetic industry

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

W.A. Poucher's influence on the early cosmetic industry 7

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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

 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

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 않아요. 아이는 않아요. 아이는 것이 않아요. 아이는 것이 않아요. 아이는 것이 않아요. 아이는 않아요. 아이는 것이 않아요. 아이는 않아. 아이는 것이 않아. 아이는 것이 않아. 아이는 않 아이는 것이 않아. 아이는
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

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

Name-B. Mahalatshmi	Class- Ind bSC (MPC) Marks obtained 38
QUEST	ION PAPER MARKS : 50
1. Which of the following causes soap to I	
a) sodium carbonate	b) sodium rosinate
c) sodium silicate	d) borax
2. What is the use of tri sodium phosphate	e 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	(a) Sonam dodecyl sulphate
c) Penta erythritol monosterate	d) sodium lauryl su phate
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	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 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 cannot	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	P7
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) Södium stearate	-8) sodium alkyl-sulphonate
CJ 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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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
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13) The chemical name of washing	(soda
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18) Which of the following is an e	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 so	alphonic acids
19) The % weight of detergent in	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 clo	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

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

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Name-	UT.	Isa	DW
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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

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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

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D) potassium pentanoate

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ELipase	80°	D) None
13) The chemic	al name of washing sod	a
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C) Lactic acid7	1.34	D) Carbonic acid
14) The proces	s of manufacturing of so	ap is called
A) Jon exchange	é	B) Allocation
C) Saponificatio	on	D) Steam distillation
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C) cationic dete	rgents	-D) non-ionic detergents
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ro prevent r	apid drying	D) For good odour
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of Soapa Works		
		e of non-ionic detergent
a) Ammonium (b) Sodium salts of alkyl sulphates
c) Sodium salts	of alkyl benzene sulphor	nic acidsdTPolyether
	ht 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-		b) Soft and biodegradable
✓) Hard and bio	degradable	d) Hard and non-biodegradable
		TRUE / FALSE
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22. Labels of all I present and the	home and garden produce amount of each. T/False	ts must be precise, showing exactly what substances are

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

DEPA	COLLEGE (W), RAJAMAHENDRAVARAM RTMENTOF CHEMISTRY
	ADDED COURSE, (2022-23) HOLD CHEMISTRY
	and the second se
Name G. U.B. Maga Sridevi	Class- IBSL (HPC) Marks obtained- 36
QUESTI	ON PAPER MARKS : 50
1. Which of the following causes soap to lat	
a) sodium carbonate	b) sodium rosinate /
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rYou develop a headache	d) any of the above
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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 aleate.
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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A) diastase	B) zymase
C) Lipase	D) None
13) The chemical name of washing soda	
A) Mineral acid	8) Fatty acid
C) Lactic acid7	
c) Eache acidy	D) Carbonic acid
14) The process of manufacturing of soap is	called
A) Ion exchange	B) Allocation
C) Saponification	D) Steam distillation
- /	St.
15) Dishwashing liquids are examples of	
A) Soaps	6) anionic detergents
C) cationic detergents	D) non-ionic detergents
no en la companya de	
16) What is the use of tri sodium phosphat	 A state of the sta
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	305
a) Synthetic detergent work both in soft wa	
b) Soaps works both in soft water and hard-	
 c) Synthetic detergents works only in hard w 	
d) Soaps works only in hard water	valer
of 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
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c) Sodium salts of alley! henzene subhonic a	cids dl Polyathar
c) Sodium salts of alkyl benzene sulphonic a	cids d) Polyether
 c) Sodium salts of alkyl benzene sulphonic a 19) The % weight of detergent in washing p 	
19) The % weight of detergent in washing p	owderls
19) The % weight of detergent in washing p	owder is 15-0 di 30-45
19) The % weight of detergent in washing p a) 5-10 b) 50-70	owder is 15-0 di 30-45
 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of th	owder is c) 15-0 d) 30-45 anding detergent will be
 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of th	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable
 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of th	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable d) Hard and non-biodegradable
 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence of th	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable d) Hard and non-biodegradable RUE / FALSE
 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 correspo	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable c) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False nust be precise, showing exactly what substances are
 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 correspo	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable c) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False nust be precise, showing exactly what substances are
 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 correspo	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable c) Hard and non-biodegradable TRUE / FALSE required to list all ingredients of their products. T/False nust be precise, showing exactly what substances are
 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 correspo	owder is 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 nust be precise, showing exactly what substances are heir long-term health effects before being
 19) The % weight of detergent in washing p a) 5-10 b) 50-70 20) If the carbon chain is linear the correspondence a) Soft and non-biodegradable c) Hard and biodegradable 11 21. Manufactures of household cleaners are present and the amount of each. T/False 23. Household products must be tested for the Placed on the market. T/False 	owder is c) 15-0 d) 30-45 onding detergent will be b) Soft and biodegradable d) Hard and non-biodegradable TRUE / FALSF required to list all ingredients of their products. T/False nust 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
) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulphate
c) Penta erythritol monosterate	d) sodium lauryi sulphate
4. Which of these are household poisons?	
 toilet bowl cleaner 	b) alcoholic drinks
c) cigarettes	d) all 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
y You develop a headache) کړی	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 an			1
a) Ammonium	e following is an example of n			le d'an de brev	00	
24.28.12.12.12.12.12.12.12		b) Sodium s		(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.
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4. Which of these are household poisons?	
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a) read the label	b) use rubber gloves
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6. What's an indication that you should stop	p using a chemical?
a) You feel dizzy	b) you feel nauseated
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7. Which of the following compound cannot	t remove grease from the clothes.
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8 which of the following is an ordinary soap	?
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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
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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
	the states of the second states of the second states and the second states and the second states and the second

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
 13) The chemical name of washing soda A) Mineral acid B) Fatty acid Cactue acid? D) Carbonic acid D) Carbonic acid D) Ionexchange B) Allocation D) Steam distillation D) Dishwashing liquids are examples of		207	
A) Mineral acid B) Fatty acid Cactic acid7 D) Carbonic acid 14) The process of manufacturing of scap is called B) Allocation A) Ion exchange B) Allocation C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of	-t-base		and against
cylactic acid7 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 D) anionic detergents A) Soaps D) non-ionic detergents C) cationic detergents D) non-ionic detergents 16) What is the use of tri sodium phosphate in soap powders? B) To make the soap act rapidly 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 B) Synthetic detergents works both in soft water and hard water C) Songs works both in soft water and hard water 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 benzene sulphonic acids D) Polyether 19) The % weight of detergent in washing powder is D) Soft and holdegradable a) Strit and non-biodegradable D) Soft and holdegradable c) Hard and biodegradable D) Suft and holdegradable d) Hard and biodegradable D) Hard and non-biodegradable d) Hard and biodegradable D) Hard and	13) The chemi	ical name of washing sod	la
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 🛛 🐱
A) Ion exchange B) Allocation C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of	C) Lactic acid7		D) Carbonic acid
A) Ion exchange B) Allocation C) Saponification D) Steam distillation 15) Dishwashing liquids are examples of	× .		- 34 25 (Distanting of the 174
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
A) Soaps C) cationic detergents D) non-ionic detergents D) For good odour D) Synthetic detergent are better than soaps D) For good odour D) Synthetic detergents are better than soaps D) For good odour D) Synthetic detergent work both in soft water and hard water D) Soaps works both in soft water and hard water D) Soaps works only in hard water D) Soaps works of detergent in washing powder is D) Soaps works of detergent in washing powder is D) Soap by Soaps works of detergent in washing powder is D) Soap by Soaps works of detergent in washing powder is D) Soap by Soaps works of detergent is b) Soap by Soaps works of alkyl sulphates D) for good dour D) Synthetic detergents are required to list all ingredients of their products. T/False D) Hard and non-biodegradable D) Hard and products must be tested for their long-term health effects before being Placed on the market are not guaranteed to be safe. True/F	C) Saponificat	ion	D) Steam distillation
A) Soaps Dy anionic detergents C) cationic detergents D) non-ionic detergents 16) What is the use of tri sodium phosphate in soap powders? B) To make it lather (C) To prevent rapid drying D) For good odour 17) Synthetic detergents are better than soaps A) Soaps works both in soft water and hard water (C) Song works both in soft water and hard water D) For good odour 17) Synthetic detergents work both in soft water and hard water Soaps works only in hard water (C) Song works only in hard water D) Soaps works only in hard water (C) Sodium salts of alkyl benzene sulphonic acids D) Polyether 19) The % weight of detergent in washing powder is a) 5-10 D) 20-45 20) If the carbon chain is linear the corresponding detergent will be a) Suft and non-biodegradable D) Hard and non-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 Telese 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	15) Dishwashi	ng liquids are examples (of
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 C) To prevent rapid drying D) For good adour 17) Synthetic detergents are better than soaps O) For good adour 17) Synthetic detergent work both in soft water and hard water D) soaps works both in soft water and hard water 18) Synthetic detergents works only in hard water D) Sodium salts of alkyl sulphates () Sodium salts of alkyl benzene sulphonic acids C) Polyether 19) The % weight of detergent in washing powder is A) Soft and non-biodegradable () Hard and biodegradable D) Soft and biodegradable () Hard and biodegradable D) Soft and biodegradable 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 are not guaranteed to be safe. True/F			
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C) To prevent rapid drying D) For good adour 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 c) Synthetic detergents works only in hard water Synthetic detergents works only in hard water d) Soaps works only in hard water Soaps works only in hard water 18) Which of the following is an example of non-lonic detergent Soaps works only in hard water a) Ammonium chloride b) Sodium salts of alkyl sulphates c) Sodium salts of alkyl benzene sulphonic acids G) Polyether 19) The % weight of detergent in washing powder is Sol by 50-70 C) 15-0 d) 30-45 20) If the carbon chain is linear the corresponding detergent will be Soft and hon-biodegradable b) Soft and biodegradable c) Hard and biodegradable b) Soft and hon-biodegradable TRUE / FALSE 21. Manufactures of household cleaners are required to list all ingredients of their products. T/False 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	16) What is th	ne use of tri sodium phos	phate in soap powders?
 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 d) Soaps works only in hard water 18) Which of the following is an example of non-lonic detergent a) Ammonium chloride b) Sodium salts of alkyl sulphates c) Sodium salts of alkyl benzene sulphonic acids c) Polyether 19) The % weight of detergent in washing powder is a) 5-10 b) 50-70 c) 15-0 d) 30-45 20) If the carbon chain is linear the corresponding detergent will be a) Suft and non-biodegradable b) Soft and biodegradable c) Hard and biodegradable c) Hard and biodegradable c) Hard and biodegradable c) 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 are not guaranteed to be safe. True/F 	A) To make th	ne soap act rapidly	B) To make it lather
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	22. Labels of al present and th 23. Household	I home and garden produ e amount of each. T/Fals products must be tested	e e e e e e e e e e e e e e e e e e e
25 "Active" ingredients make up the major portion of a graduat	22. Labels of al present and th 23. Household	I home and garden produ e amount of each. T/Fals products must be tested	e e e e e e e e e e e e e e e e e e e
A DECEMBER OF A DECEMBER OF THE THE PROPERTIES AND ADDRESS OF THE	22. Labels of al present and th 23. Household Placed on the r	II home and garden produ e amount of each. T/Fals products must be tested market. T/False	for their long-term health effects before being

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 CI 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

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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

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17) Synthetic detergents are better than soaps

Synthetic detergent work both in soft water and hard water

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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 nourder is

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

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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
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c) Hard and biodegradable	d) Hard and non-biodegradable
	TRUE / FALSE

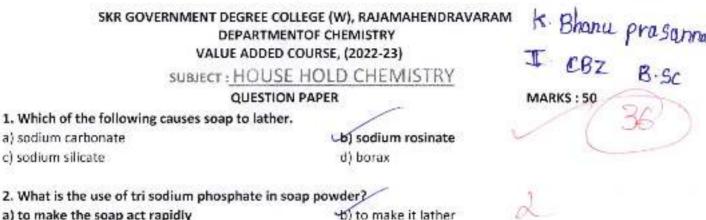
22. Labels of all home and garden products must be precise, showing exactly what substances are present and the amount of each. T/False

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

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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

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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

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

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a) Ammonium chloride	b) Sodium salts of alkyl sulphates
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TRUE / FALSE

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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

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b) alcoholic drinks d) all the above

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

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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

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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	
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2

10) Detergent is_

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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.

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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

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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 8) 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

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

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		
c) Synthetic de	tergents works only in ha	ard water		
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

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) 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
8.0.12	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 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	1
		b) of chain distinguish	
15) Dishwashir	ng liquids are examples (of	
-A) Soaps	•	B) anionic detergent	is 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 geod 6614	
17) Synthetic d	letergents are better that	n 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 March			
	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	1
c) Hard and bio	odegradable	d) Hard and non-biodegrada	ible
		TRUE / FALSL	
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/Fais		what addatables 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	ot 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	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	has	
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) could be a set	01.555223	
C) potassium permit 8 and sodium stearate	B) Sodium and Calcium salt of higher f D) sodium Sales bishes fatte wide	atty acids	
President permit of and sourcemstearate	D) sodium Salsa higher fatty acids		

12) In human be	ing and animals the oil	and the facts are hyd	rolysed by which enzymes enzymes		
ALdiastase			B) zymase		
C) Lipase		D) Non	D) None		
13) The chemica	I name of washing sod	a /			
A) Mineral acid			-B) Fatty acid		
C) Lactic acid7			rbonic acid		
14) The process	of manufacturing of so	ap is called			
A) Jon exchange	S DEPENDED CALIFORNIC CONTRACTOR AND	-C WORSCHOOL PROFILE	B) Allocation		
C) Saponificatio	1	D) St	D) Steam distillation		
15) Dishwashing	liquids are examples o	of	1		
A) Soaps		545 CU2650	B) apionic detergents		
C) cationic deter	gents		-D) non-ionic detergents		
161 What is the	use of tri sodium phos	phate in soap powder	s?		
	soap act rapidly		B) To make it lather		
C) To prevent ra		54.0.4.5.C	D) For good odour		
17) Synthetic de	tergents are better that	an soaps			
a) Synthetic det	ergent work both in so	oft water and hard wat	ter		
b) Soaps works	both in soft water and l	hard water 🛛 🧹			
c) Synthetic det	ergents works only in h	ard water			
d) Soaps works	only in hard water				
18) Which of the	following is an examp	le of non-ionic deterg	ent		
a) Ammonium c	hloride	b) Sodiurp sa	b) Sodium salts of alkyl sulphates		
c) Sodium salts (of alkyl benzene sulpho	nic acids d) Po	lyether		
19) The % weigh	t of detergent in wash	ine powder is			
a) 5-10	b) 50-70	e) 15-0	d) 30-45		
0,210		1,20			
20) If the carbon	chain is linear the cor	responding detergent	will be		
a) Soft and non-		b).Soft and biodegradable			
c) Hard and bloc	legradable	-d) Hard and r	-d) Hard and non-biodegradable		
			~		
		TRUE / FALSE	/		
21. Manufacture	s of household cleaner	s are required to list al	l ingredients of their products. T/False		
	nome and garden produ amount of each. T/Fals		howing exactly what substances are		
23. Household p Placed on the ma		for their long-term he	aith effects before being		
24. Products plac	ed on the market are r	not guaranteed to be s	afe. True/F		
25. "Active" ingr	edients make up the m	ajor portion of a produ	ict. T/False		
	2011년(1911년) 2011년(1911년) 2011년(1911년)	·····································			

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

and the second sec	
Name- R. Nandlon C	lass BSC (BZ(EM) Marks obtained 42
QUESTIO	
name and the second	
1. Which of the following causes soap to lath	by sodium rosinate
a) sodium carbonate	d) borax
c) sodium silicate	dipplax 0
2. What is the use of tri sodium phosphate in	1 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 fo	llowing
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 cj cigarettes	01
5. The best way to handle a household clean	er 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 stop	using a chemical?
al 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	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	St Sodium alkyl sulphonate
C) Potassium butyrate	D) Sodium óleate.
11) Poth coop is a mixture of	
11) Bath soap is a mixture of	B) Sodium and Calcium salt of higher fatty acids
A) potassium salts of higher fatty acids C) potassium permit 8 and sodium stearate	D) sodium Salsa higher fatty acids
c) potassium permit & and solitum stearate	of spending on service merching reads

12) In human being and animals the oil a	nd the facts are hydrolysed by which enzymes enzymes
A) diastase	B) zymase
Chipase	D) None
13) The chemical name of washing soda	lan in a
A) Mineral acid	B) Fatty acid
C) Lactic acid7	D) Carbonic acid
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Afton 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
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A) To make the soap act rapidly	B) To make it lather
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	in the second
17) Synthetic detergents are better than	
Synthetic detergent work both in soft	
b) Soaps works both in soft water and ha	
c) Synthetic detergents works only in har	rd water
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a) Ammonium chloride	 b) Sodium salts of alkyl sulphates
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19) The % weight of detergent in washin	ig 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	Hard and non-biodegradable
	TRUE / FALSE
	are required to list all ingredients of their products. T/False
22. Labels of all home and garden produce present and the amount of each. T/Faise	cts must be precise, showing exactly what substances are
	or 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

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

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

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)

5. ISwinga 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

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

DEPAR VALUE AD	EE COLLEGE (W), RAJAMAHENDRAV TMENTOF CHEMISTRY DED COURSE, (2022-23)	U.Deepika TIBSC (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	b) sodium rosinate	(36)
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	2
3. Identify the cationic detergent from the	following	
a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulp	hate \
c) 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	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) potassium palmitate	1
C) Soap	D) potassium pentanoa	
8 which of the following is an ordinary soap	?	
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C) Sodium acetate	D) sodium benzoate	
9) Soap is a?		
Al Sodium stearate	B) calcium stearate	/
C) Sodium acetate	D) sodium benzoate	
10) Detergent is	6.5	
A) Sodium stearate	By sodium alkyl sulphon	ata l
C) Potassium butyrate	D) Sodium oleate.	are
11) Bath soap is a mixture of		- A -
A) potassium salts of higher fatty acids	B) Sodium and Calcium salt of hi	abor fath a U
C) potassium permit 8 and sodium stearate	Di sodium Salsa higher fatty acid	gner facty acids
		6
 In human being and animals the oil and t A) diastase 	the facts are hydrolysed by which e B) zvmase	nzymes enzymes

C) Lipase

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

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B) Allocation

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

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B) anionic detergents D) non-ionic detergents

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c) Hard and biodegradable

TRUE / FALSE

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

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	Ш B3	SC CB
Name- Cla	ass- Marks obtained	2
QUESTION	N PAPER MARI	KS : 50
1. Which of the following causes soap to lathe	er.	
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€ sodium silicate	d) borax 🦳	
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ھ) to make the soap act rapidly	b) to make it lather 🛛 🗸 🗸	
c) to prevent rapid drying	d) for good adour	
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a) cetyltrimethyl ammonium bromide	b) Sonam dodecyl sulphate 🛛 🗹	
c) Penta erythritol monosterate	d) sodium lauryi sulphate	
4. Which of these are household poisons?	1	
a) toilet bowl cleaner	🖌 alcoholic drinks 🖉	
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C) Sodium acetate	D) sodium benzoate	-
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A) Sodium stearate	🔊 sodium alkyl sulphonate 🛛 🗸	
C) Potassium butyrate	D) Sodium oleate.	
11) Bath soap is a mixture of		
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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

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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 Digt., 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

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Head of the Department

Principal



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SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM

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.



SKR GOVERNMENT DEGREE COLLEGE (W), RAJAMAHENDRAVARAM

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.





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

SKR GOVERNMENT DEGREE COLLEGE (WOMEN), RAJAMAHENDRAVARAM

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

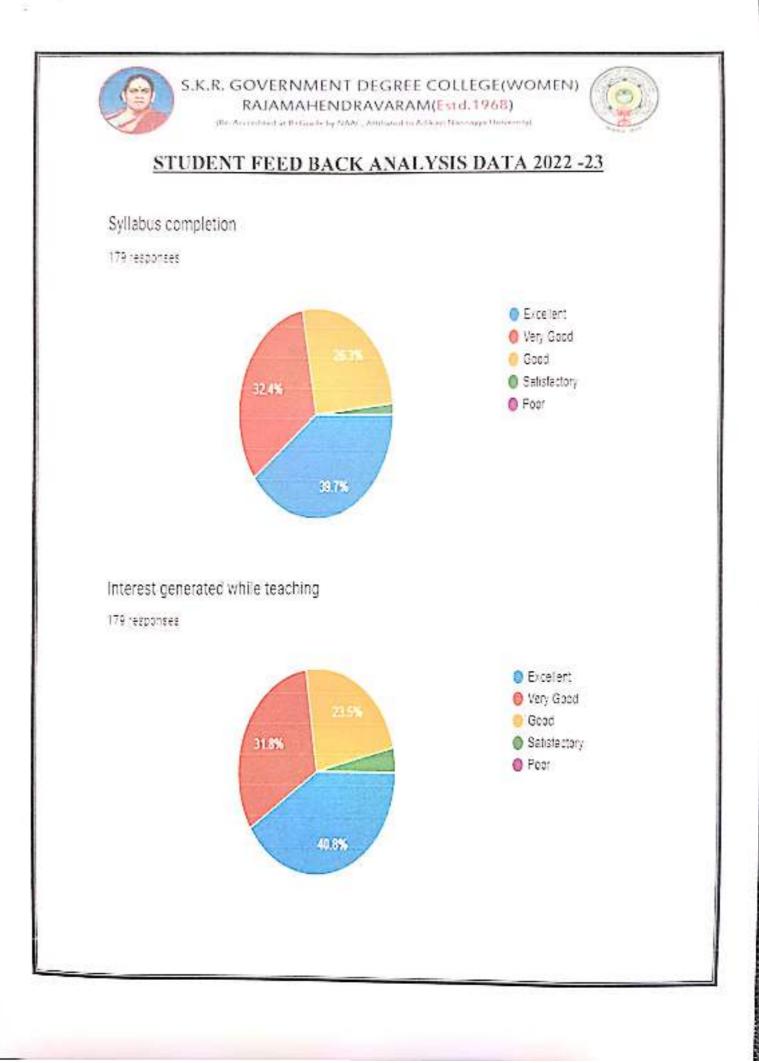
The feedback report for the academic year 2022-2023 was placed before the staff council meeting chaired by the principal of the college. The council discussed the report in detail. For all the positive feedback about the teaching learning process, the efforts of the teachers were appreciated. The meeting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

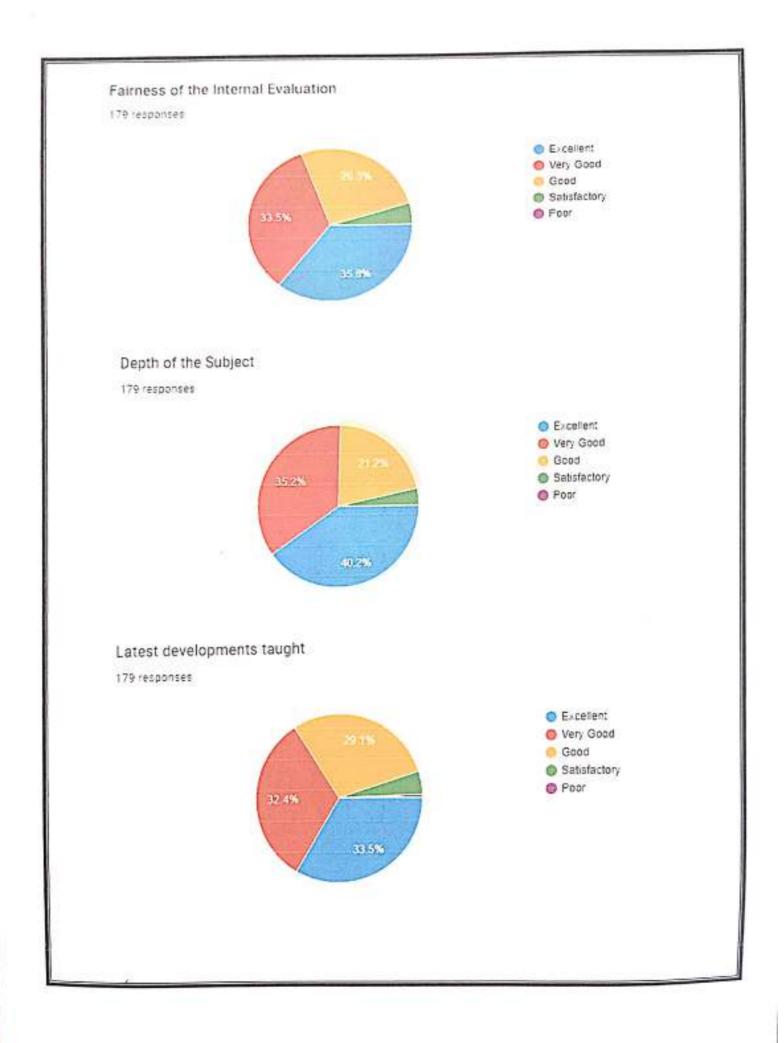
Student Centered Learning (SCL) practices in curriculum delivery and transaction were given much emphasis.

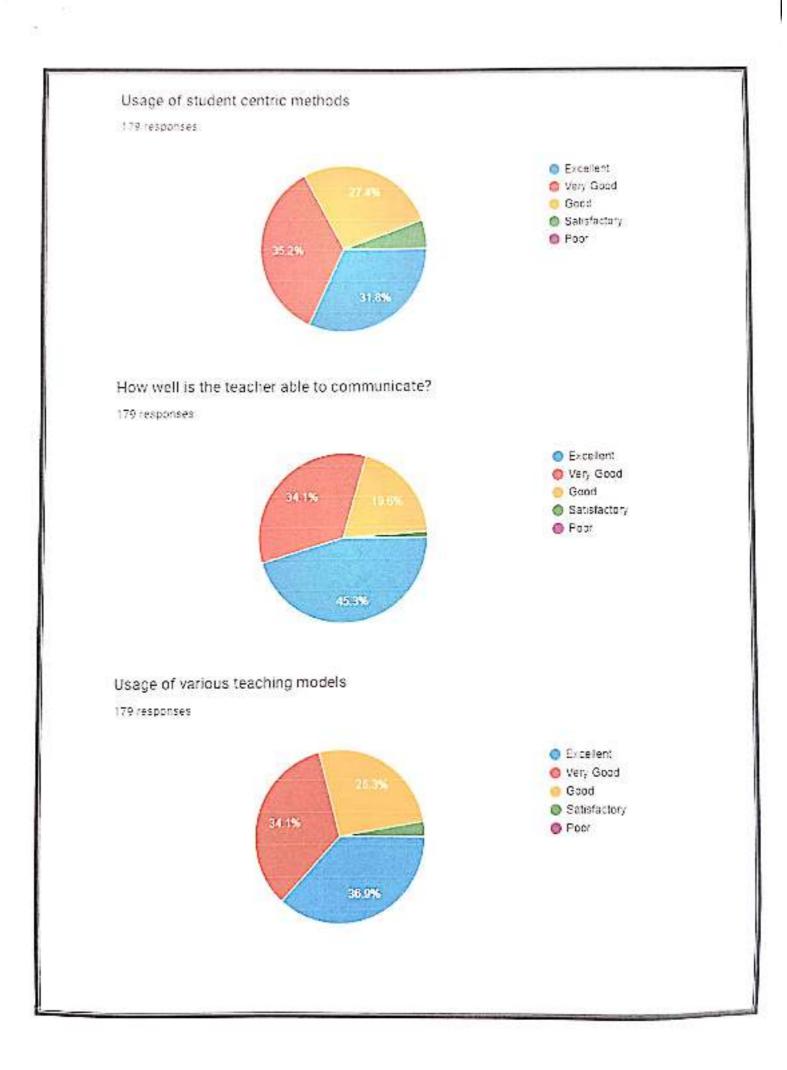
Based on the parents & alumnac feedback, PG coaching is continued in a more structured manner and offered support to the students seeking higher education.

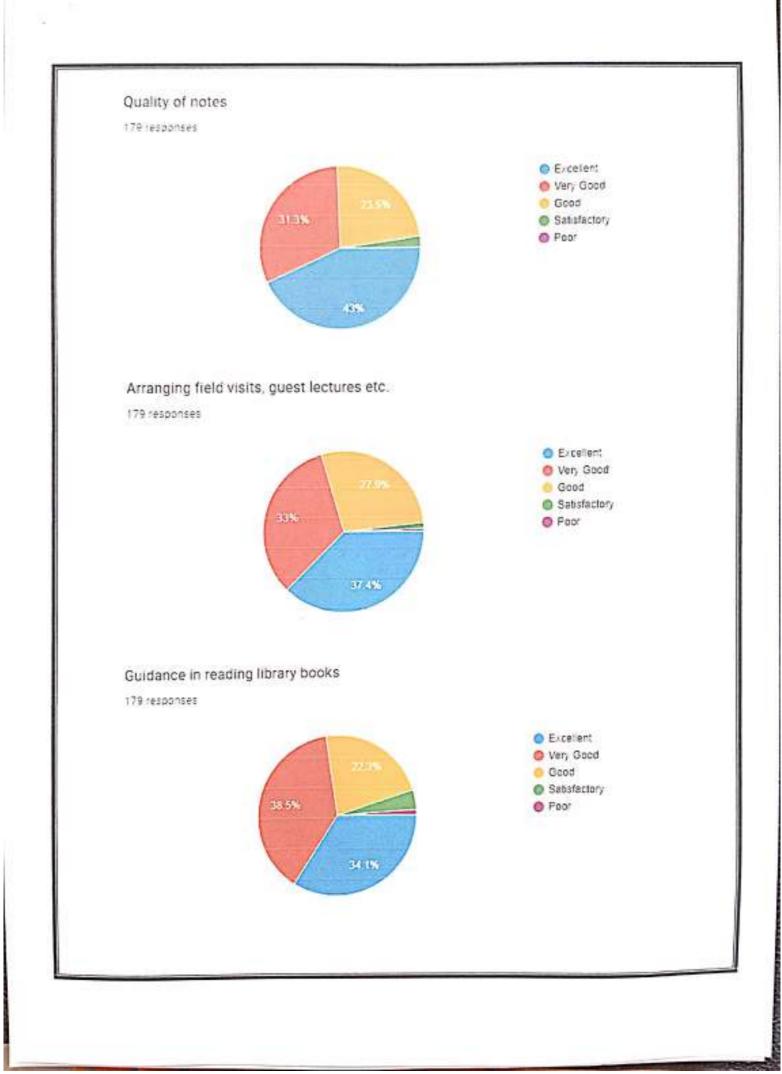
The mentors were specifically directed to provide emotional support to students and be accessible to them even out of the classroom, following the spirit of the Mentor Mentee System (MMS) in place.

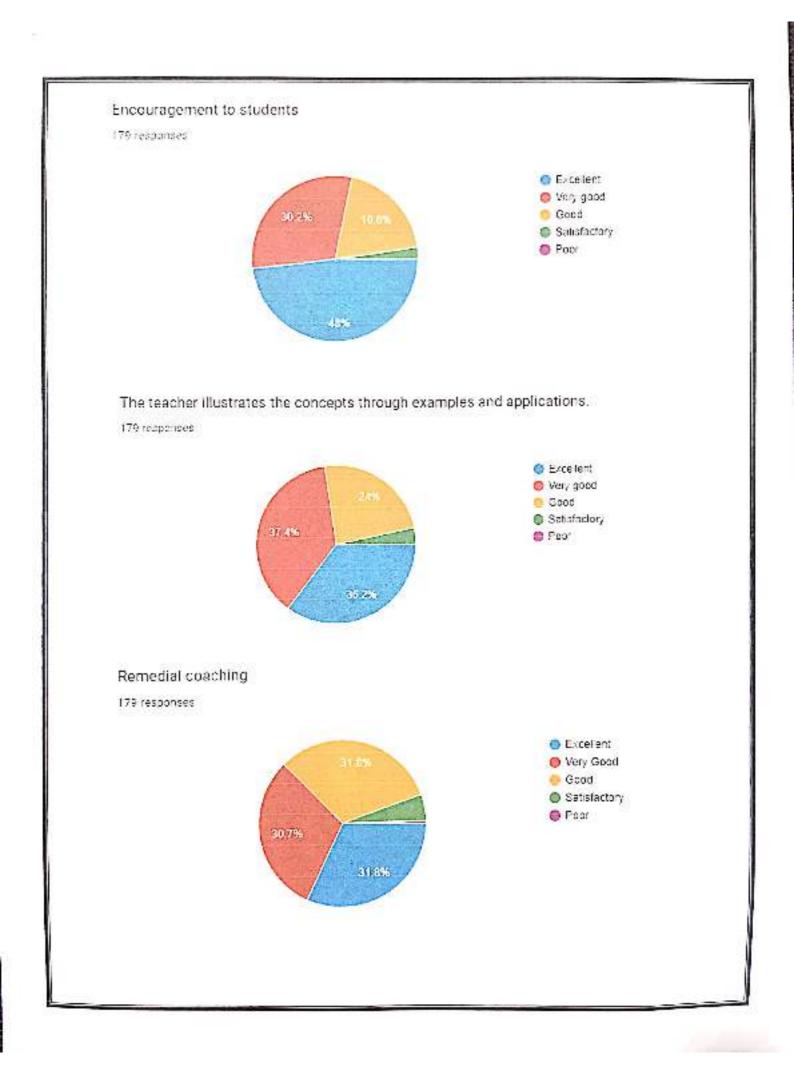
RINCIPAL .R. Government Begree College (Watard) RAJAMAHENDRAVARAM. East Godavari Dist., Andhra Pradesh

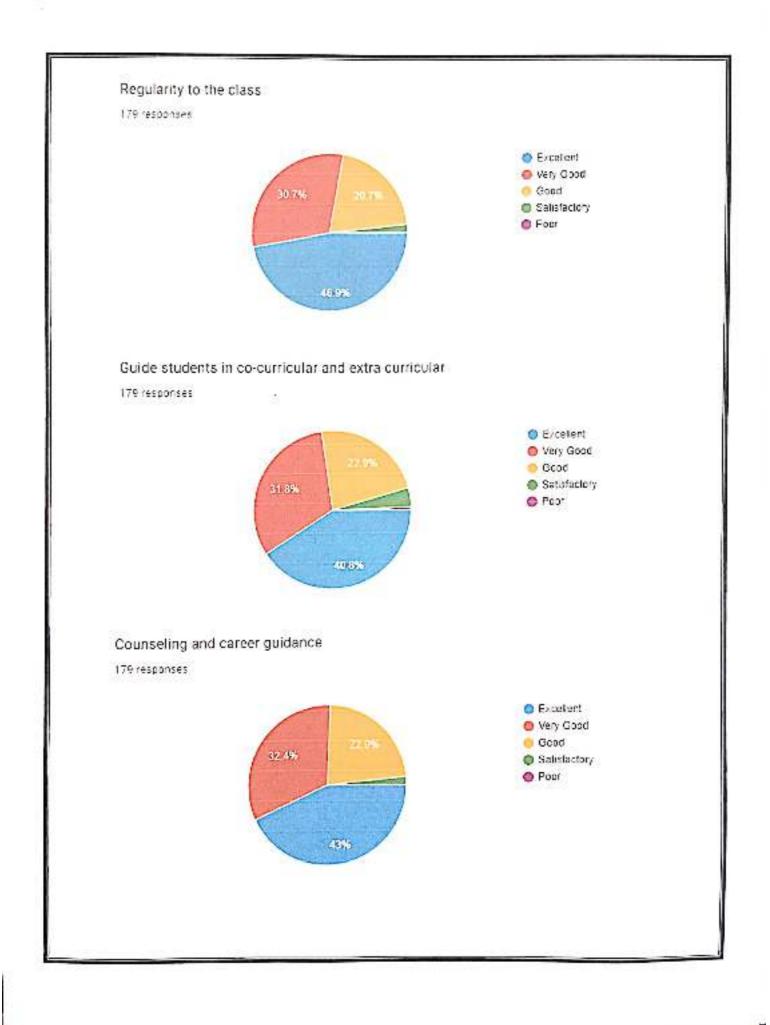


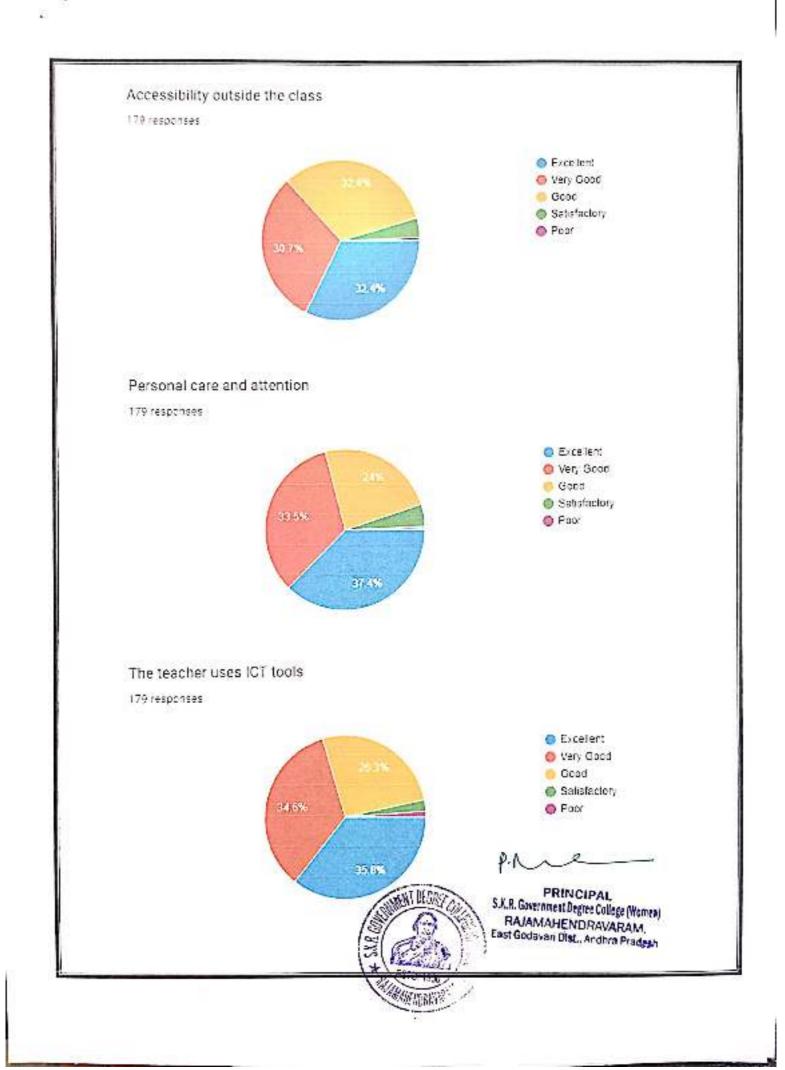


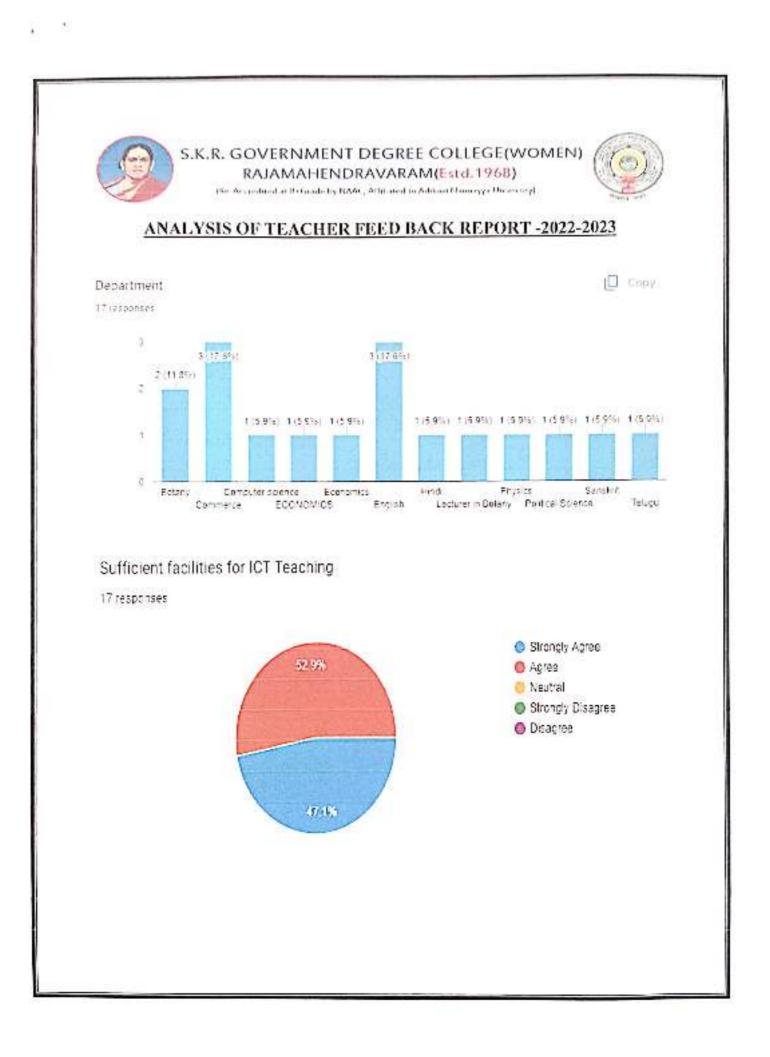


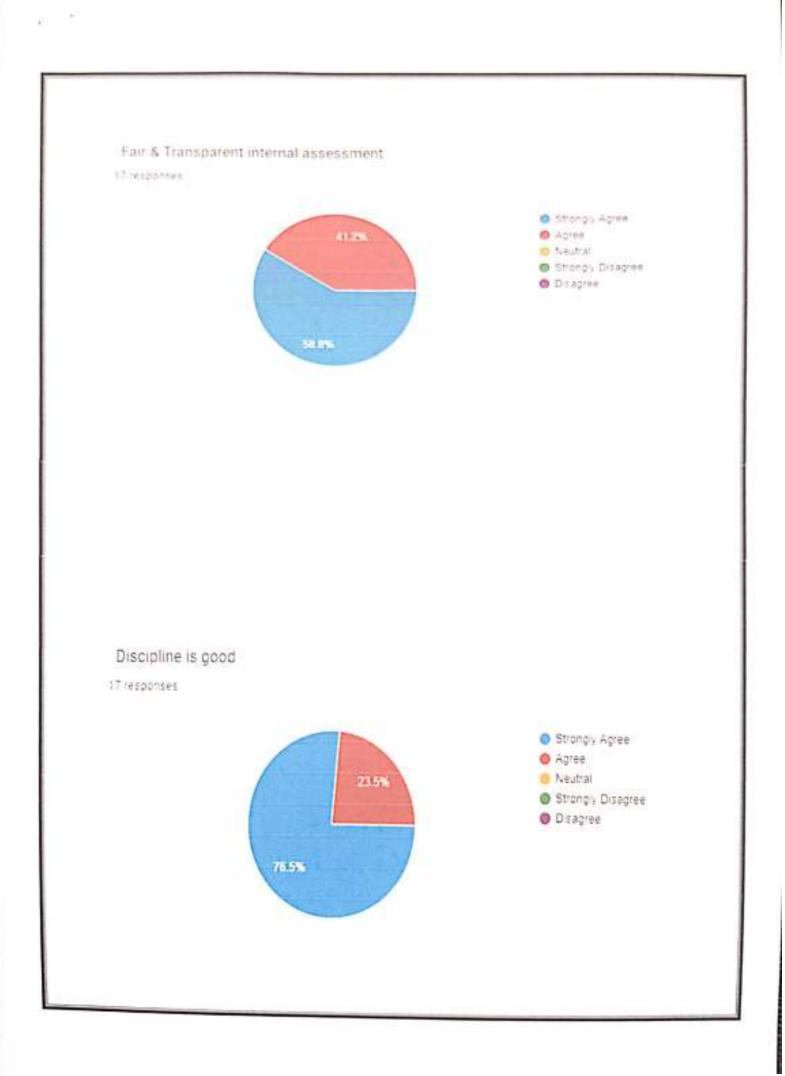


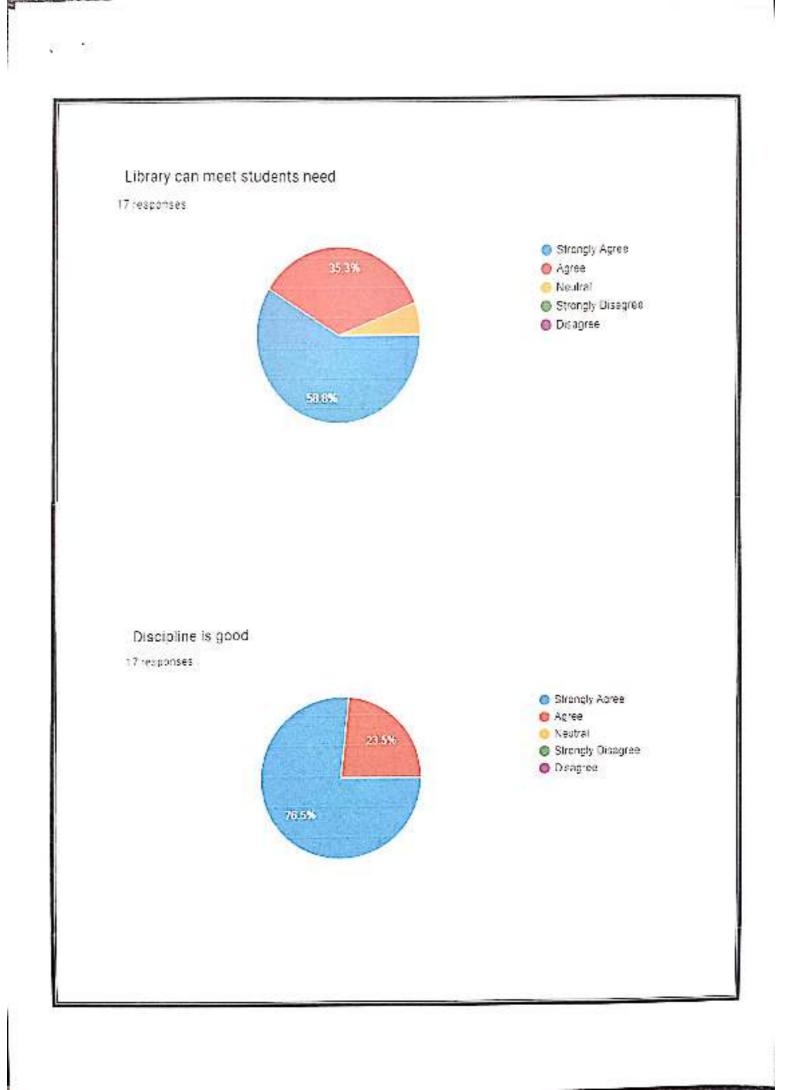


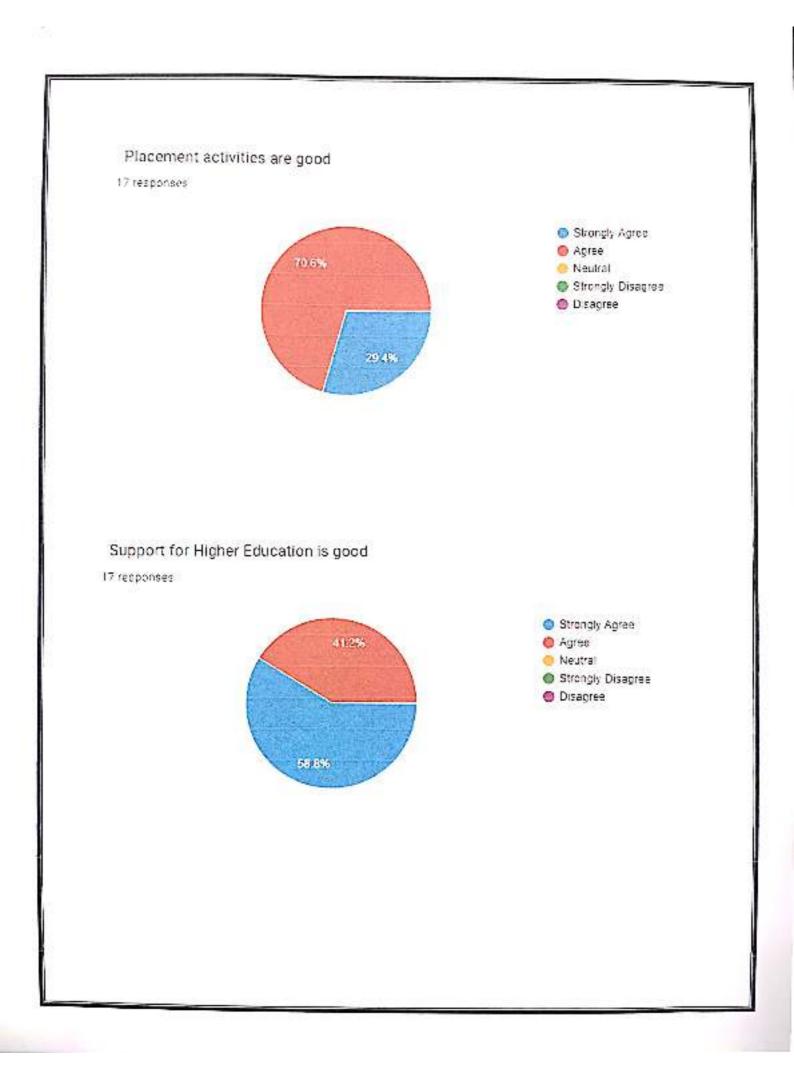


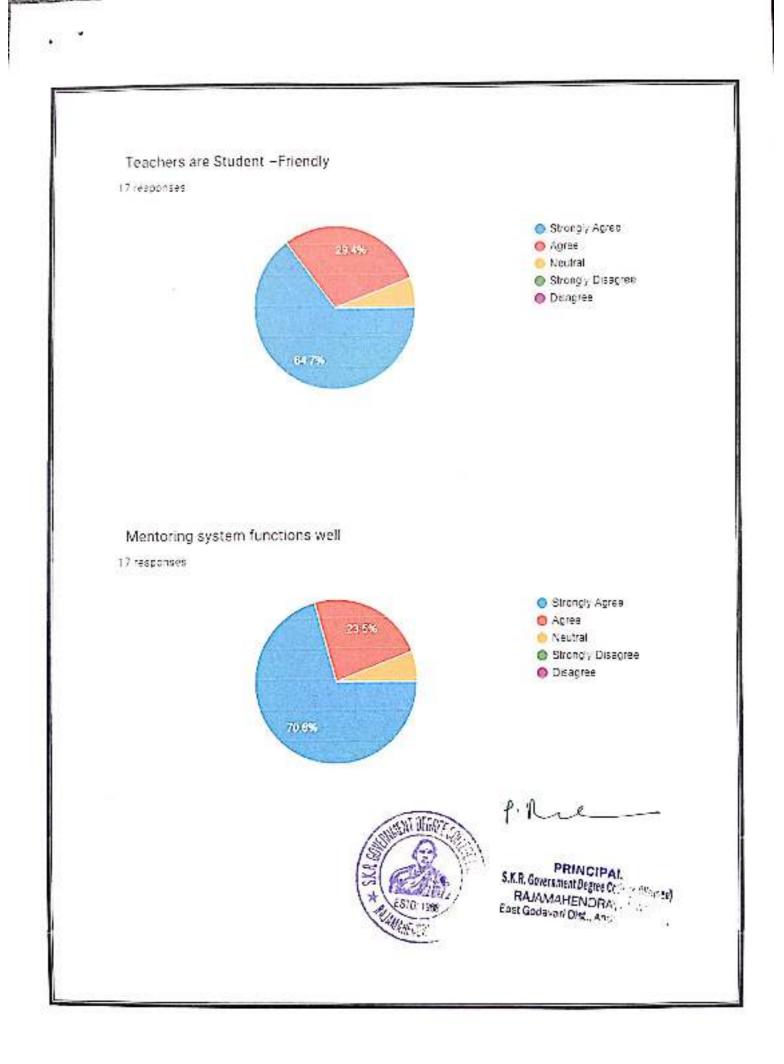


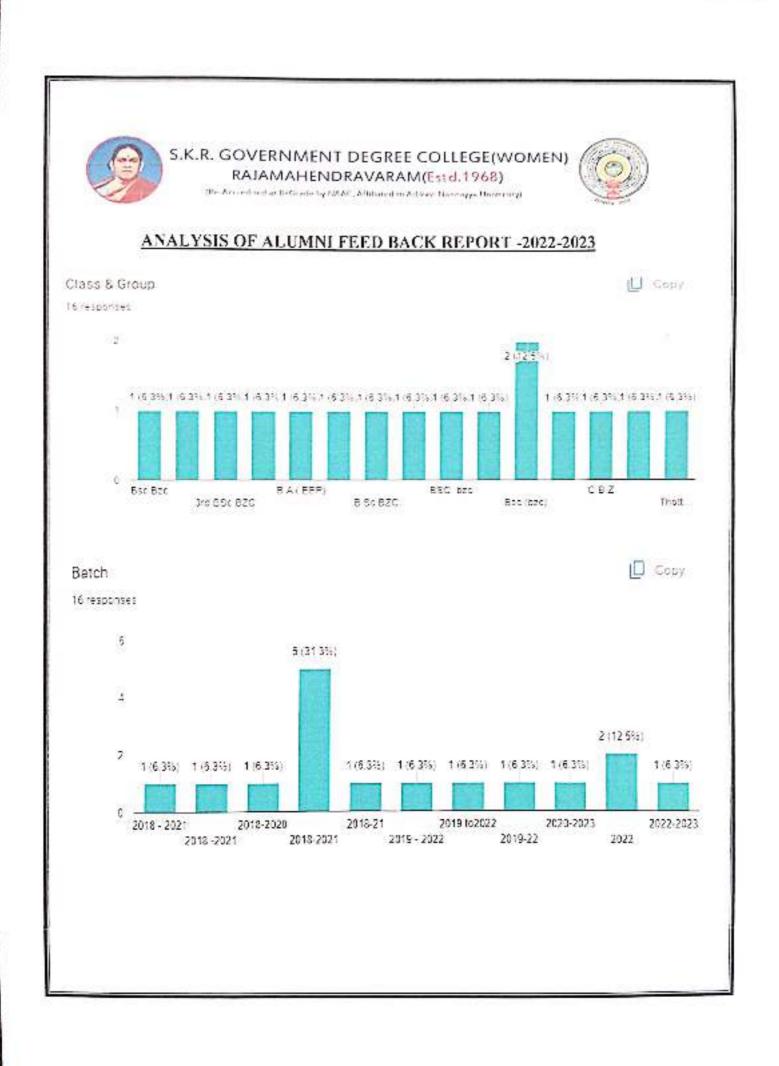






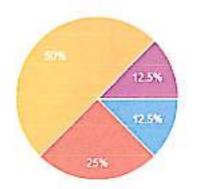






Sufficient facilities for ICT Teaching

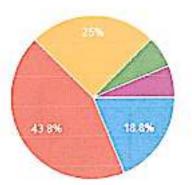
16 responses





Fair & Transparent internal assessment

16 responses





10000

