

Department of Chemistry									
1.1.2 Details of courses offered by the institution that focus on employability/ entrepreneurship/ skill development during the year.									
S.No.	Name of the Course	Course Code	Em	Activities Focusing on Employability	En	Activities Focusing on Entrepreneurship	SD	Activities Focusing on Skill Development	Outcome
2023-2024									
1	Core Course I: General Chemistry - I	CU231CC1	<input checked="" type="checkbox"/>	Model making on structure of molecules according to VSEPR Theory.			<input checked="" type="checkbox"/>	Construction of periodic table.	To remember the atomic structure, preparation and uses of various compounds.
2	Core Lab Course I: Quantitative Inorganic Estimation (titrimetry) and Inorganic Preparations	CU231CP1					<input checked="" type="checkbox"/>	Demonstration on quantitative, permanganometry and argenometry experiments.	To apply the synthetic routes to prepare inorganic compounds.
3	Elective Course I: Chemistry for Biological Sciences – I	CU231EC1	<input checked="" type="checkbox"/>	Group discussion on rules for filling up of the atomic orbitals.			<input checked="" type="checkbox"/>	Demonstration on volumetric analysis experiments.	To apply various theories behind osmosis, catalysis and some drugs.
4	Elective Lab Course I : Chemistry Practical for Physical and Biological Sciences	CU231EP1					<input checked="" type="checkbox"/>	Demonstration on experiments.	To improve the skill in volumetric analysis.
5	Non Major Elective (NME): Food Chemistry	CU231NM1	<input checked="" type="checkbox"/>	Detection of food adulteration by various analytical techniques.			<input checked="" type="checkbox"/>	Detection of food adulterants in food samples.	To apply various methods to detect various adulterants in food and to determine the values of oils and fats.
6	Foundation Course: Basics of Chemistry	CU231FC1	<input checked="" type="checkbox"/>	Group work on finding the hybridization and geometry of compounds.			<input checked="" type="checkbox"/>	Drawing the shapes of s, p, d and f orbitals.	To analyze the periodic properties of elements, magnetic properties, characteristic of solids and types of spectroscopic techniques.
7	Core Course II : General Chemistry - II	CU232CC1	<input checked="" type="checkbox"/>	Demonstration on volumetric analysis experiments.			<input checked="" type="checkbox"/>	Analysing the characteristics of various polymers.	To assess the application of acids, indicators, buffers, compounds of s and p- block elements and hydrocarbons.
8	Core Lab Course II: Organic Estimation and Preparation of Organic Compounds	CU232CP1					<input checked="" type="checkbox"/>	Demonstration on estimation of organic compounds.	To develop skill in estimating organic samples.
9	Elective Course II: Chemistry for Biological Sciences - II	CU232EC1	<input checked="" type="checkbox"/>	Calculate the acid value and saponification value of oil samples.			<input checked="" type="checkbox"/>	Demonstration on estimation of saponification value of oil samples.	To analyse the rancidity of various oil samples.
10	Elective Lab Course II: Systematic Analysis of Organic Compounds	CU232EP1					<input checked="" type="checkbox"/>	Demonstration on organic analysis.	To detect the presence of functional group in organic samples.
11	Non Major Elective NME II: Cosmetics and Personal Grooming	CU232NM1	<input checked="" type="checkbox"/>	Analyse the advantages and disadvantages of the usage of cosmetics.	<input checked="" type="checkbox"/>	Prepare natural hair dye.	<input checked="" type="checkbox"/>	Prepare natural hair dye and face mask.	To remember the ingredients of different cosmetics.
12	Skill Enhancement Course SEC I: Dairy Chemistry	CU232SE1	<input checked="" type="checkbox"/>	Detect the common adulterants in milk samples.	<input checked="" type="checkbox"/>	Analyse milk sample and prepare milk products.	<input checked="" type="checkbox"/>	Demonstration on analysis of quality of milk and prepare milk products.	To develop skill in analysing milk samples and know its importance.
13	Major Core III : General Chemistry - III	CC2031	<input checked="" type="checkbox"/>	Drawing energy profile diagrams.			<input checked="" type="checkbox"/>	Exhibit brownian motion.	To predict the chemistry of nitrogen and oxygen family.
14	Major Elective I a) : Pharmaceutical Chemistry	CC2032	<input checked="" type="checkbox"/>	Seminar presentation on drug development.			<input checked="" type="checkbox"/>	Analyze the properties of antibacterial drugs.	To interpret the chemical structure and pharmacological activities of drugs.
15	Major Elective I b) : Nano and Polymer Chemistry	CC2033	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To apply the uses of nanomaterials in industrial and medicinal field.
16	Major Elective I c) : Applied Electro Chemistry	CC2034	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To differentiate between electrometallurgy and hydrometallurgy.

17	Allied II Theory: Inorganic and Physical Chemistry	CA2031	<input checked="" type="checkbox"/>	Display of models to explain the metallurgical processes.			<input checked="" type="checkbox"/>	Model making on types of crystal lattices.	To understand the concepts in atomic structure, chemical bonding and nuclear chemistry.
18	Soil Science and Agricultural Chemistry	CC20S1	<input checked="" type="checkbox"/>	Analysis of soil to find out the factors affecting soil pH.			<input checked="" type="checkbox"/>	Analysis of micro and macro nutrients in soil samples.	To acquire knowledge on soil science.
19	Major Core IV : General Chemistry - IV	CC2041	<input checked="" type="checkbox"/>	Assignment on the synthesis, properties and applications of halocompounds.			<input checked="" type="checkbox"/>	Demonstration of walden inversion using models.	To learn the preparation and chemical reactions of alkyl and aryl halides with mechanism and to apply the knowledge in the synthesis of compounds.
20	Major Elective II a) : Green Chemistry	CC2042	<input checked="" type="checkbox"/>	Demonstration of experiments using green method.			<input checked="" type="checkbox"/>	Demonstration of simple experiments using green method.	To interpret the green method for organic synthesis.
21	Major Elective II b) : Forensic Chemistry	CC2043	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To create mobile forensic science laboratories.
22	Major Elective II c) : Instrumental Methods of Analysis	CC2044	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To categorize the different analytical methods.
23	Major Practical II : Semi micro inorganic mixture analysis	CC20P2					<input checked="" type="checkbox"/>	Analysis of an Inorganic mixture containing two anions and two cations.	To understand the principles of analysing inorganic compounds.
24	Allied II Theory: Physical Chemistry	CA2041	<input checked="" type="checkbox"/>	Deriving the relationship between specific heat capacity and molar heat capacity.			<input checked="" type="checkbox"/>	Hands on training of measuring magnetic moment using Guoy Balance.	To apply the principles of physical properties for structural determination.
25	Allied II Practical : Volumetric and Organic Substance Analysis	CA20P1					<input checked="" type="checkbox"/>	Demonstration of acidimetry and alkalimetry experiments.	To apply the scheme of organic analysis to detect functional groups.
26	Chemistry of Cosmetics	CC20S2			<input checked="" type="checkbox"/>	Exhibition cum sales of cosmetic products	<input checked="" type="checkbox"/>	Preparation of soaps.	To understand the constituents and preparation of cosmetics.
27	Major Core V : Organic Chemistry - I	CC2051	<input checked="" type="checkbox"/>	Model making on optical isomerism of molecules.			<input checked="" type="checkbox"/>	Exhibition on stereoisomers.	To remember the preparation and synthesis of carbonyl, nitrogen containing compounds.
28	Major Core VI : Inorganic Chemistry - I	CC2052	<input checked="" type="checkbox"/>	Application of EAN rule to inorganic complexes.			<input checked="" type="checkbox"/>	Industrial visit - Extraction and purification of metals.	To analyse the nature of bonding in co-ordination and organometallic compounds.
29	Major Core VII : Physical Chemistry - I	CC2053	<input checked="" type="checkbox"/>	Demonstration of potentiometric titrations.			<input checked="" type="checkbox"/>	Demonstration on doing analysis of compounds using spectrophotometers.	To analyze the working of electrical appliances in day to day life.
30	Major Elective III a) : Bio Chemistry	CC2054	<input checked="" type="checkbox"/>	Doing spot test to identify the different biomolecules.			<input checked="" type="checkbox"/>	Hands on training on identification of blood groups.	To illustrate the industrial and medical applications of enzymes.
31	Major Elective III b) : Dairy Chemistry	CC2055	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To analyze the importance of dairy products.
32	Major Elective III c) : Analytical Chemistry	CC2056	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To know the important terminologies and theories involved in analytical chemistry.
33	Major Core VIII : Organic Chemistry - II	CC2061	<input checked="" type="checkbox"/>	Explaining with models to impart clear knowledge on stereochemistry.			<input checked="" type="checkbox"/>	Demonstration on doing analysis of compounds using spectrophotometers.	To elucidate the structure of carbohydrates, alkaloids and terpenoids.
34	Major Core IX : Inorganic Chemistry - II	CC2062	<input checked="" type="checkbox"/>	Detecting the radioactivity emitted by the particles in the college campus using the Geiger Muller counters.			<input checked="" type="checkbox"/>	Model making on crystallography.	To predict the role of bioinorganic compounds in biological systems.

35	Major Core X : Physical Chemistry - II	CC2063	<input checked="" type="checkbox"/>	Peer teaching of drawing adsorption isotherms.			<input checked="" type="checkbox"/>	Construction of phase diagram for two component system.	To construct phase diagrams for one and two component systems.
36	Major Practical III : Gravimetric Estimation and Organic Preparation	CC20P3					<input checked="" type="checkbox"/>	Demonstration of Gravimetric Analysis experiments and Preparation of organic compounds.	To improve the skill in organic estimation and qualitative analysis.
37	Major Practical IV : Organic Estimation ,Organic Analysis and Determination of Physical Constants	CC20P4					<input checked="" type="checkbox"/>	Demonstration of Organic estimation experiments.	To determine the physical constants of organic compounds with maximum accuracy.
38	Major Practical V : Physical Chemistry Experiments	CC20P5					<input checked="" type="checkbox"/>	Demonstration of physical chemistry experiments.	To develop skill in doing conductivity and potentiometric titrations.
39	Project	CC20PR					<input checked="" type="checkbox"/>	Preparation and analysing of new compounds.	To gain skill in research.
40	Chemistry for Competitive Examinations	SEC203	<input checked="" type="checkbox"/>	Group work in writing the electronic configurations of elements.			<input checked="" type="checkbox"/>	Model making of atomic orbitals.	To gain knowledge for competitive examinations.
41	Core Course I: Organic Reaction Mech	CP231CC1	<input checked="" type="checkbox"/>	Peer group teaching on conformational asymmetry and ORD curves	<input checked="" type="checkbox"/>	Preparation of aromatic compounds	<input checked="" type="checkbox"/>	Model making of organic compounds.	To predict the reaction mechanism of organic reactions and stereochemistry of organic compounds.
42	Core Course II: Structure and Bonding in Inorganic compounds	CP231CC2	<input checked="" type="checkbox"/>	Interpretation of XRD data- JCPDS files	<input checked="" type="checkbox"/>	Demonstration on crystal growth methods.	<input checked="" type="checkbox"/>	Group discussion on application of conductors, insulators and semiconductors.	To understand the various types of ionic crystal systems and analyze their structural features.
43	Core Lab Course I: Organic Chemistry Practical	CP231CP1	<input checked="" type="checkbox"/>	Preparation of organic compounds in the laboratory			<input checked="" type="checkbox"/>	Demonstration on separation and analysis of mixture of compounds.	To understand the concept of separation, qualitative analysis and preparation of organic compounds.
44	Elective Course I a): Nano Materials and Nano Technology	CP231EC1	<input checked="" type="checkbox"/>	Synthesize nanomaterials.	<input checked="" type="checkbox"/>	Fabrication of photovoltaic cell.	<input checked="" type="checkbox"/>	Seminar on nanomaterials.	To correlate the characteristics of various nano materials synthesized by new technologies.
45	Elective Course I b) : Pharmaceutical Chemistry	CP231EC2	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand the advanced concepts of pharmaceutical chemistry.
46	Elective Course I c): Analytical Chemistry	CP231EC3					<input checked="" type="checkbox"/>		To understand the principle and instrumentation of various analytical techniques.
47	Elective Course II a): Electrochemistry	CP231EC4	<input checked="" type="checkbox"/>	Presentation by students- Electrocapillary phenomena.	<input checked="" type="checkbox"/>	Fabrication of fuel cell.	<input checked="" type="checkbox"/>	Analysing the potential of a working electrode, and measuring the resulting current.	To understand the behaviour of electrolytes in solution and compare the structures of electrical double layer of different models.
48	Elective Course II b): Molecular Spectroscopy	CP231EC5	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To study the principle of Raman spectroscopy, ESR spectroscopy, EPR spectroscopy and fragmentation patterns in Mass spectroscopy.
49	Elective Course II c) : Industrial Products	CP231EC6	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To understand the composition and quality of industrial products.
50	Core Course III: Organic Reaction Mechanism-II	CP232CC1	<input checked="" type="checkbox"/>	Presentation on concepts of thermodynamics and mathematical probability.			<input checked="" type="checkbox"/>	Group discussion on rearrangements.	To understand the mechanism of various types of organic reactions and apply the suitable reagents for the conversion of selective organic compounds.
51	Core Course IV: Physical Chemistry-I	CP232CC2	<input checked="" type="checkbox"/>	Peer teaching on theories of conservation of mass and energy.	<input checked="" type="checkbox"/>	Project- Analysis of the properties of condensed polymers.	<input checked="" type="checkbox"/>	Determination of molecular weight by viscosity method.	To understand the classical and statistical concepts of thermodynamics.
52	Core Course II: Lab Course Inorganic Chemistry Practical I	CP232CP1	<input checked="" type="checkbox"/>	Analysis of cations from the mixture.			<input checked="" type="checkbox"/>	Preparation of inorganic complexes and Estimation of ions.	To apply the principles of semi micro qualitative analysis to categorize the cations.

53	Elective Course III a): Medicinal Chemistry	CP232EC1	<input checked="" type="checkbox"/>	Student's presentation on Antibiotics.			<input checked="" type="checkbox"/>	Assignment on the clinical applications of drugs.	To analyze the factors that affect the absorption, distribution, metabolism, and excretion in drug design.
54	Elective Course III b): Green Chemistry	CP232EC2	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To analyze the advantages of organic reactions assisted by renewable energy sources and non-renewable energy source.
55	Elective Course III c) : Transition Metal Chemistry	CP232EC3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To evaluate the various parameters involved in the spectra of transition metal complexes.
56	Elective Course IV a) : Bio Inorganic Chemistry	CP232EC4	<input checked="" type="checkbox"/>	Peer teaching on types of nitrogen fixing microorganisms. Nitrogenase enzyme.			<input checked="" type="checkbox"/>	Clinical visit to observe MRI.	To analyze the mechanism of biological redox systems.
57	Elective Course IV b) : Material Science	CP232EC5	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To validate the importance of crystal structures, piezoelectric and pyroelectric materials, nanomaterials, hard and soft magnets, superconductors, solar cells,
58	Elective Course IV c): Organometallic Chemistry	CP232EC6	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To apply the basic concepts to understand the reactive mechanism of organometallic compounds as catalysts.
59	Skill Enhancement Course I :Health Science	CP232SE1	<input checked="" type="checkbox"/>	Role play on First Aid.	<input checked="" type="checkbox"/>	Identification of blood groups and matching. Determination of glucose in serum blood pressure, blood	<input checked="" type="checkbox"/>	Demonstration on first aid of chemical hazards and acid burn.	To know the importance of vitamins.
60	Core VII : Organic Spectroscopy	PG2031	<input checked="" type="checkbox"/>	Demonstration on analysis of compounds using spectrophotometers.			<input checked="" type="checkbox"/>	Demonstration on analysis of functional groups using spectrophotometer.	To understand the principle and applications of UV, IR, NMR and Mass spectroscopic techniques.
61	Core VIII : Thermodynamics and Group Theory	PG2032	<input checked="" type="checkbox"/>	Create origami models of molecules.			<input checked="" type="checkbox"/>	Demonstration of symmetry operations.	To learn the various concepts of thermodynamics and statistical thermodynamics.
62	Elective III a) : Advanced Topics in Chemistry	PG2033	<input checked="" type="checkbox"/>	Elocution and slogan writing on Global Well-being that emphasised on the approach towards green	<input checked="" type="checkbox"/>	Fabrication of non-linear optical switches.	<input checked="" type="checkbox"/>	Video contest, Drawing competition - Sustainable development.	To understand the principles and application of advanced areas in chemistry.
63	Elective III b) : Medicinal Chemistry	PG2034	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To understand the pharmacology and nomenclature of drugs.
64	Project and Viva	PG20PR					<input checked="" type="checkbox"/>	Synthesising, characterising and analysing various nano materials, polymers and complexes.	To inculcate research aptitude in students.
65	Chemistry for Lecturership exam - I	PC20S1	<input checked="" type="checkbox"/>	Group discussion and periodic assessment.			<input checked="" type="checkbox"/>	Revising previous question papers.	To equip with knowledge to face the competitive exams.
66	Core IX : Inorganic Spectroscopy, Photochemistry and Organometallics	PG2041	<input checked="" type="checkbox"/>	Paper presentation on biological activity of metals ,demonstration and interpretation of spectra.	<input checked="" type="checkbox"/>	Synthesis of organometallic catalyst.	<input checked="" type="checkbox"/>	Demonstration on analysis of compounds using spectrophotometers in FIST lab.	To understand the principle, interpretation and applications of various spectroscopic techniques to inorganic compounds.
67	Core X : Photochemistry and Natural Products	PG2042	<input checked="" type="checkbox"/>	Demonstration on the characterisation of carbonyl compounds in the FIST lab.	<input checked="" type="checkbox"/>	Synthesis of heterocyclic compounds.	<input checked="" type="checkbox"/>	Drawing Jablonski diagram in groups and highlighting the various photochemical processes.	To understand various organic reactions with their mechanism and synthetic utility.
68	Core XI : Polymer Chemistry	PG2043	<input checked="" type="checkbox"/>	Industrial visit to polymer industry.	<input checked="" type="checkbox"/>	Preparation of rubber.	<input checked="" type="checkbox"/>	Preparation of polymer.	To understand the concept of polymer chemistry.
69	Elective IV a) : Energy for Future	PG2044	<input checked="" type="checkbox"/>	Creation of scientific models from waste materials.	<input checked="" type="checkbox"/>	Fabrication of solar cells.	<input checked="" type="checkbox"/>	Essay Contest-Renewable Energies for the Eco Sustainability of India.	To understand the importance of various sources of non-conventional energy.
70	Elective IV b) : Nanochemistry	PG2045	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To acquire knowledge about basic concepts of nanochemistry.

71	Practical III: Inorganic Chemistry - II	PG20P3	<input checked="" type="checkbox"/>	Estimation of metal ions in a mixture by volumetric and gravimetric method.			<input checked="" type="checkbox"/>	Demonstration on preparation of complexes.	To separate and estimate the metal ions from a mixture volumetrically and gravimetrically.
72	Practical IV : Physical Chemistry	PG20P4	<input checked="" type="checkbox"/>	Estimation of strength of solutions by potentiometric titrations.			<input checked="" type="checkbox"/>	Demonstration on conductometric and potentiometric titrations.	To apply the principles of conductometry and potentiometry to determine the strength of unknown solutions.
73	Chemistry for Lecturership exam - II	PC20S2	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.			<input checked="" type="checkbox"/>	Identifying chiral centres in organic compounds.	To equip with knowledge to face the competitive exams.
2022-2023									
74	Major Core I : General Chemistry - I	CC2011	<input checked="" type="checkbox"/>	Group discussion on factors affecting the periodic properties.			<input checked="" type="checkbox"/>	Solving problems based on titrimetric analysis.	To interpret various bonding in organic compounds and analyse periodic properties.
75	Allied I Theory: Chemistry for Life Sciences	CA2011	<input checked="" type="checkbox"/>	Group discussion on electronic configurations of elements.			<input checked="" type="checkbox"/>	Demonstration on chromatography techniques.	To understand the concepts of biophysical analysis, catalysis and photochemistry.
76	Non Major Elective (NME): Applied Chemistry - I	CNM201	<input checked="" type="checkbox"/>	Group activity on preparation of paper.	<input checked="" type="checkbox"/>	Hands on training on preparation of soaps and detergents.	<input checked="" type="checkbox"/>	Preparation of inks, disinfectants and liquid blue.	To analyse the characteristics and advantages of agrochemicals.
77	Major Core II : General Chemistry – II	CC2021	<input checked="" type="checkbox"/>	Groupwork on drawing the vapour pressure temperature diagram.			<input checked="" type="checkbox"/>	Demonstration of electrolytic refining using muffle furnace.	To predict the type of bonding and geometry of chemical compounds.
78	Major Practical I : Volumetric Analysis and Inorganic complex Preparation	CC20P1					<input checked="" type="checkbox"/>	Demonstration on physical experiments.	To develop the skill in quantitative analysis.
79	Allied I Theory: Chemistry of Biomolecules	CA2021	<input checked="" type="checkbox"/>	Analysis of properties of biomolecules.	<input checked="" type="checkbox"/>	Estimation of carbohydrate content.	<input checked="" type="checkbox"/>	Analysis of carbohydrates in food stuffs.	To analyse the carbohydrate content in food materials.
80	Allied II Practical : Volumetric and Organic Substance Analysis	CA20P1					<input checked="" type="checkbox"/>	Demonstration on inorganic experiments.	To improve the skill in volumetric analysis.
81	Non Major Elective (NME) : Applied Chemistry - II	CNM202	<input checked="" type="checkbox"/>	Demonstration on the preparation of simple drugs in the laboratory.	<input checked="" type="checkbox"/>	.	<input checked="" type="checkbox"/>	Industrial visit to petrochemical industry.	To analyse the characteristics of matches ,explosives, paints and pigments.
82	Major Core III : General Chemistry - III	CC2031	<input checked="" type="checkbox"/>	Drawing energy profile diagrams.			<input checked="" type="checkbox"/>	Preparation of various types of colloids.	To predict the chemistry of nitrogen and oxygen family.
83	Major Elective I a) : Pharmaceutical Chemistry	CC2032	<input checked="" type="checkbox"/>	Seminar presentation on drug development.			<input checked="" type="checkbox"/>	Lecture by experts on antibacterial drugs.	To interpret the chemical structure and pharmacological activities of drugs.
84	Major Elective I b) : Nano and Polymer Chemistry	CC2033	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To apply the uses of nanomaterials in industrial and medicinal field.
85	Major Elective I c) : Applied Electro Chemistry	CC2034	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To differentiate between electrometallurgy and hydrometallurgy.
86	Allied II Theory: Inorganic and Physical Chemistry	CA2031	<input checked="" type="checkbox"/>	Preparing models on metallurgical processes.			<input checked="" type="checkbox"/>	Making models of solids and defects.	To understand the concepts in atomic structure, chemical bonding and nuclear chemistry.
87	Soil Science and Agricultural chemistry	CC20S1	<input checked="" type="checkbox"/>	Analysing the factors affecting soil pH.			<input checked="" type="checkbox"/>	Identification of plant nutrients.	To acquire knowledge on soil science.

88	Major Core IV : General Chemistry - IV	CC2041	<input checked="" type="checkbox"/>	Chart work xenon compounds.			<input checked="" type="checkbox"/>	Designing models of Xenon compounds.	To learn the preparation and chemical reactions of alkyl and aryl halides.
89	Major Elective II a) : Green Chemistry	CC2042	<input checked="" type="checkbox"/>	Demonstration of experiments using green method.			<input checked="" type="checkbox"/>	Demonstration of simple experiments.	To interpret the green method for organic synthesis.
90	Major Elective II b) : Forensic Chemistry	CC2043	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To create mobile forensic science laboratories.
91	Major Elective II c) : Instrumental Methods of Analysis	CC2044	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To categorize the different analytical methods.
92	Major Practical II : Semi Micro Inorganic Mixture Analysis	CC20P2					<input checked="" type="checkbox"/>	Analysis of an Inorganic mixtures.	To understand the principles of analysing inorganic compounds.
93	Allied II Theory: Physical Chemistry	CA2041		Group discussion on Jablonski diagram.			<input checked="" type="checkbox"/>	Seminar presentation on Thermogravimetric analysis.	To apply the principles of physical properties for structural determination.
94	Allied II Practical : Volumetric and Organic Substance Analysis	CA20P1					<input checked="" type="checkbox"/>	Demonstration of experiments.	To apply the scheme of organic analysis to detect functional groups.
95	Chemistry of Cosmetics	CC20S2			<input checked="" type="checkbox"/>	Preparation of natural cosmetics.	<input checked="" type="checkbox"/>	Evaluation of cosmetic pollution.	To understand the constituents and preparation of cosmetics.
96	Major Core V : Organic Chemistry - I	CC2051	<input checked="" type="checkbox"/>	Making models on optical isomerism on compounds.			<input checked="" type="checkbox"/>	Syntheisis of carbon, hydrogen and nitrogen containing compounds.	To remember the preparation and synthesis of carbonyl, nitrogen containing and heterocyclic compounds.
97	Major Core VI : Inorganic Chemistry - I	CC2052	<input checked="" type="checkbox"/>	Group discussion on transition elements.			<input checked="" type="checkbox"/>	Preparation of Alums.	To analyse the nature of bonding in co-ordination and organometallic compounds.
98	Major Core VII : Physical Chemistry - I	CC2053	<input checked="" type="checkbox"/>	Peer group teaching on the application of electrochemistry.			<input checked="" type="checkbox"/>	Seminar on electromagnetic radiation.	To analyze the working of electrical appliances in day to day life.
99	Major Elective III a) : Bio Chemistry	CC2054	<input checked="" type="checkbox"/>	Group Discussion on the biochemical functions of biomolecules.			<input checked="" type="checkbox"/>	Experiments to classify carbohydrates.	To illustrate the industrial and medical applications of enzymes.
100	Major Elective III b) : Dairy Chemistry	CC2055	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To analyze the importance of dairy products.
101	Major Elective III c) : Analytical Chemistry	CC2056	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To know the important terminologies and theories of analytical chemistry.
102	Major Core VIII : Organic Chemistry - II	CC2061	<input checked="" type="checkbox"/>	Interactive session on the physiological activities and structural elucidation of alkaloids.			<input checked="" type="checkbox"/>	Analysing the sample by UV and NMR method.	To elucidate the structure of carbohydrates, alkaloids and terpenoids.
103	Major Core IX : Inorganic Chemistry - II	CC2062	<input checked="" type="checkbox"/>	Using visual images and models for different crystal systems.			<input checked="" type="checkbox"/>	Field study on atomic power projects in India.	To predict the role of bioinorganic compounds in biological systems.
104	Major Core X : Physical Chemistry - II	CC2063	<input checked="" type="checkbox"/>	Model making.			<input checked="" type="checkbox"/>	Synthesise and estimate the molecular weight of compounds using osmotic pressure.	To construct phase diagrams for one and two component systems.
105	Major Practical III : Gravimetric Estimation and Organic Preparation	CC20P3					<input checked="" type="checkbox"/>	Demonstration on gravimetric estimation.	To improve the skill in gavimetric estimation and organic preparation.

106	Major Practical IV : Organic Estimation ,Organic Analysis and Determination of Physical Constants	CC20P4				<input checked="" type="checkbox"/>	Demonstration on estimation of phenol and aniline.	To determine the physical constants of organic compounds with maximum accuracy.	
107	Major Practical V : Physical Chemistry Experiments	CC20P5				<input checked="" type="checkbox"/>	Demonstration of experiments on Conductometric titrations.	To develop skill in doing conductivity and potentiometric titrations.	
108	Project	CC20PR				<input checked="" type="checkbox"/>	Preparation and analysing of new compounds.	To gain skill in research.	
109	Chemistry for Competitive Examinations	SEC203	<input checked="" type="checkbox"/>	Demonstration on separation of mixtures.		<input checked="" type="checkbox"/>	Determination of hardness of water.	To gain knowledge for competitive examinations.	
110	Core I : Structure and Bonding	PG2011	<input checked="" type="checkbox"/>	Creating scientific models from waste materials.	<input checked="" type="checkbox"/>	Preparation of artificial gem stones.	<input checked="" type="checkbox"/>	Grain carpet competition - Drawing molecular structure.	To understand the structure and bonding in inorganic compounds.
111	Core II : Reaction Mechanism and Stereochemistry	PG2012	<input checked="" type="checkbox"/>	Seminar on reaction mechanism and conformation in organic compounds.	<input checked="" type="checkbox"/>	Preparation of synthetic enamines.	<input checked="" type="checkbox"/>	Group discussion on the preparation of enamines.	To understand the basic concepts of reaction mechanisms, stereochemistry and conformation in organic compounds.
112	Core III : Chemical Kinetics and Electrochemistry	PG2013	<input checked="" type="checkbox"/>	Drawing Jablonski diagram in groups and highlighting the various photochemical processes.	<input checked="" type="checkbox"/>	Preparation of batteries.	<input checked="" type="checkbox"/>	Model making on batteries and fuel cells.	To understand the concepts of chemical kinetics, catalysis, photochemistry and electrochemistry.
113	Elective I a) : Analytical Chemistry	PG2014	<input checked="" type="checkbox"/>	Demonstration on Column chromatography in the laboratory.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Demonstration on different chromatographic methods.	To understand the principle and instrumentation of various analytical techniques.
114	Elective I b) : Electrochemistry	PG2015	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To acquire knowledge about industrial electrochemistry and its applications.
115	Core IV : Coordination Chemistry	PG2021	<input checked="" type="checkbox"/>	Drawing Jahn-Teller diagram for molecules.	<input checked="" type="checkbox"/>	Synthesis of inorganic complexes.	<input checked="" type="checkbox"/>	Assignment on comparison of CFT and MOT of bonding in octahedral complexes.	To evaluate the magnetic and spectral properties of complexes.
116	Core II : Reaction Mechanism and Ster	PG2022	<input checked="" type="checkbox"/>	Group discussion on stereochemistry of molecules.			<input checked="" type="checkbox"/>	Assignment on Robinson annulation sequence, Diels' Alder, Knoevenagel and Mannich reactions.	To understand the mechanism of organic reactions.
117	Core VI : Quantum Chemistry and Spec	PG2023	<input checked="" type="checkbox"/>	Spectral analysis of compounds using spectrophotometer in the FIIST lab.	<input checked="" type="checkbox"/>	Synthesis of surface active agents.	<input checked="" type="checkbox"/>	Demonstration on symmetry operation of molecules.	To understand the concepts of quantum chemistry, spectroscopy and surface chemistry.
118	Elective II a): Research Methodology	PG2024	<input checked="" type="checkbox"/>	Assignment on practical application and significance of chemical compounds..	<input checked="" type="checkbox"/>	Hands on training on writing project report.	<input checked="" type="checkbox"/>	Demonstration of Chemistry Softwares.	To understand the sources of literature survey and analytical techniques for documentation of research and cheminformatics for molecular representation.
119	Elective II b) : Nuclear Chemistry	PG2025	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To provide knowledge about the radioactivity and nuclear reactions.
120	Practical I : Inorganic Chemistry - I	PG20P1	<input checked="" type="checkbox"/>	Demonstration on analysis of compounds.			<input checked="" type="checkbox"/>	Estimation of inorganic compounds.	To understand the methods for the separation and estimation of inorganic compounds.
121	Practical II : Organic Chemistry	PG20P2	<input checked="" type="checkbox"/>	Preparation of new chemical compounds in the laboratory.			<input checked="" type="checkbox"/>	Demonstration and Analysis of organic compounds.	To provide knowledge about the separation and analysis of binary mixtures and estimate various organic substances.
122	Core VII : Organic Spectroscopy	PG2031	<input checked="" type="checkbox"/>	Identification of functional groups in organic compounds using spectroscopy.			<input checked="" type="checkbox"/>	Demonstration and Group discussion of ¹ H NMR Spectroscopy.	To understand the principle and applications of UV, IR, NMR and Mass spectroscopic techniques.
123	Core VIII : Thermodynamics and Group Theory	PG2032	<input checked="" type="checkbox"/>	Creating Origami models representing various molecular geometries.			<input checked="" type="checkbox"/>	Seminar on Van't Hoff isotherm.	To learn the various concepts of thermodynamics and statistical thermodynamics.

124	Elective III a) : Advanced Topics in Chemistry	PG2033	<input checked="" type="checkbox"/>	Elocution and slogan writing on Global Science for Global Well-being.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Exhibition on non-linear optical switches.	To understand the principles and application of advanced areas in chemistry.
125	Elective III b) : Medicinal Chemistry	PG2034	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		To understand the pharmacology and nomenclature of drugs.
126	Project and Viva	PG20PR				<input checked="" type="checkbox"/>	Synthesising and analysing the newly synthesised compounds.	To inculcate research aptitude in students.
127	Chemistry for Lecturership exam - I	PC20S1	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.		<input checked="" type="checkbox"/>	Characterisation of inorganic complexes using UV spectrophotometer.	To equip with knowledge to face the competitive exams.
128	Core IX : Inorganic Spectroscopy, Photochemistry and Organometallics	PG2041	<input checked="" type="checkbox"/>	Seminar on biological activity of metals. Demonstration and interpretation of spectra.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Characterisation of Ru complexes by spectroscopic techniques.	To understand the principle, interpretation and applications of various spectroscopic techniques to inorganic compounds.
129	Core X : Photochemistry and Natural Products	PG2042	<input checked="" type="checkbox"/>	Demonstration of photochemical experiments.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mind map on retrosynthetic analysis of bisabolane and longifolene.	To understand various organic reactions with their mechanism and synthetic utility.
130	Core XI : Polymer Chemistry	PG2043	<input checked="" type="checkbox"/>	Industrial visit to chemical industries to gain knowledge on polymer processing techniques.	<input checked="" type="checkbox"/>	Preparation of rubber.	Seminar on solution polycondensation and interfacial condensation.	To understand the concept of polymer chemistry.
131	Elective IV a) : Energy for Future	PG2044	<input checked="" type="checkbox"/>	Industrial Visit to Mini Hydro electric Power Plant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Essay Contest-Renewable Energies for the Eco Sustainability of India.	To understand the importance of various sources of non-conventional energy.
132	Elective IV b) : Nanochemistry	PG2045	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		To acquire knowledge about basic concepts of nanochemistry.
133	Practical III: Inorganic Chemistry - II	PG20P3	<input checked="" type="checkbox"/>	Demonstration of volumetric and gravimetric analysis in the laboratory.		<input checked="" type="checkbox"/>	Demonstration and Analysis inorganic complex.	To separate and estimate the metal ions from a mixture volumetrically and gravimetrically.
134	Practical IV : Physical Chemistry	PG20P4	<input checked="" type="checkbox"/>	Demonstration of potentiometric titrations in the laboratory.		<input checked="" type="checkbox"/>	Demonstration of conductometric titration.	To apply the principles of conductometry and potentiometry to determine the strength of unknown solutions.
135	Chemistry for Lecturership exam - II	PC20S2	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.		<input checked="" type="checkbox"/>	Differentiating compounds as aromatic and non aromatic.	To equip with knowledge to face the competitive exams.
2021-2022								
136	Major Core I : General Chemistry - I	CC2011	<input checked="" type="checkbox"/>	Quiz on hybridization and geometry of compounds.		<input checked="" type="checkbox"/>	Preparation of standard solutions.	To interpret various bonding in organic compounds and periodic properties.
137	Allied I Theory: Chemistry for Life Sciences	CA2011	<input checked="" type="checkbox"/>	Quiz on electronic configuration of elements .		<input checked="" type="checkbox"/>	Demonstration on paper and Thin layer chromatography.	To understand the concepts of biophysical analysis, catalysis and photochemistry.
138	Non Major Elective (NME) :Applied Chemistry - I	CNM201	<input checked="" type="checkbox"/>	Creating images and models for manufacture of sugar.	<input checked="" type="checkbox"/>	Hands on training through lab experiments.	Analysing pesticides in paddy fields.	To analyse the characteristics and advantages of agrochemicals.
139	Major Core II : General Chemistry – II	CC2021	<input checked="" type="checkbox"/>	Group discussion on MO theory to predict the properties of molecules.		<input checked="" type="checkbox"/>	Construction of models using VSEPR theory.	To predict the type of bonding and geometry of chemical compounds.
140	Allied I Theory: Chemistry of Biomolecules	CA2021	<input checked="" type="checkbox"/>	Project on extraction and refining of oils.	<input checked="" type="checkbox"/>	Demonstration on tests for carbohydrates.	Detection of sucrose and starch in fruits.	To apply the chemistry of biomolecules in industry and medicine.

141	Major Practical I : Volumetric Analysis and Inorganic Complex Preparation	CC20P1				<input checked="" type="checkbox"/>	Demonstration of experiments on iodometry, dichrometry and acidimetry.	To develop the skill in quantitative analysis.	
142	Allied I Practical :Volumetric and Organic Substance Analysis	CA20P1				<input checked="" type="checkbox"/>	Demonstration on organic substance analysis.	To improve the skill in volumetric analysis.	
143	Non Major Elective (NME): Applied Chemistry - II	CNM202	<input checked="" type="checkbox"/>	Model making on fractional distillation of petrochemicals.	<input checked="" type="checkbox"/>	Hands on training on preparation of soaps and detergents.	<input checked="" type="checkbox"/>	Workshop on water soluble paints.	To analyse the characteristics of matches ,explosives, paints and pigments.
144	Major Core III : General Chemistry - III	CC2031	<input checked="" type="checkbox"/>	Quiz on aromaticity of compounds using Huckel's rule.			<input checked="" type="checkbox"/>	Hands on traing in making gels.	To predict the chemistry of nitrogen and oxygen family.
145	Major Elective I a) : Pharmaceutical Chemistry	CC2032	<input checked="" type="checkbox"/>	Seminar on Common diseases and treatment.			<input checked="" type="checkbox"/>	Lecture by experts on antibacterial drugs.	To interpret the chemical structure and pharmacological activities of drugs.
146	Major Elective I b) : Nano and Polymer Chemistry	CC2033	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To apply nanomaterials in industrial and medicinal field.
147	Major Elective I c) : Applied Electro Chemistry	CC2034	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To differentiate between electrometallurgy and hydrometallurgy.
148	Allied II Theory: Inorganic and Physical Chemistry	CA2031	<input checked="" type="checkbox"/>	Peer group teaching on M.O diagram.			<input checked="" type="checkbox"/>	Making models of shapes, solids and defects.	To understand the concepts in atomic structure, chemical bonding and nuclear chemistry.
149	Soil Science and Agricultural chemistry	CC20S1	<input checked="" type="checkbox"/>	Analysing the soil to find out the factors affecting soil pH.			<input checked="" type="checkbox"/>	Hands on traing on soil analysis.	To improve the skills in soil testing.
150	Major Core IV : General Chemistry - IV	CC2041	<input checked="" type="checkbox"/>	Chart work on Carnot cycle for determining the efficiency of heat engine.			<input checked="" type="checkbox"/>	Assignment on substitution reaction.	To apply the knowledge in the synthesis of compounds.
151	Major Elective II a) : Green Chemistry	CC2042	<input checked="" type="checkbox"/>	Demonstration of experiments on green method.			<input checked="" type="checkbox"/>	Demonstration of simple experiments on sapanification.	To interpret the green method for organic synthesis.
152	Major Elective II b) : Forensic Chemistry	CC2043	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To create mobile forensic science laboratories.
153	Major Elective II c) : Instrumental Methods of Analysis	CC2044	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To categorize the different analytical methods.
154	Major Practical II : Semi micro Inorganic Mixture Analysis	CC20P2					<input checked="" type="checkbox"/>	Demonstration of inorganic mixture analysis.	To understand the principles of analysing inorganic compounds.
155	Allied II Theory: Physical Chemistry	CA2041	<input checked="" type="checkbox"/>	Problem solving on heat capacities.			<input checked="" type="checkbox"/>	Seminar presentation on cis-trans isomerism and disubstituted benzene derivatives.	To apply physical properties for structural determination.
156	Allied II Practical : Volumetric and Organic Substance Analysis	CA20P1					<input checked="" type="checkbox"/>	Demonstration on estimation of inorganic compounds.	To detect functional groups of organic compounds.
157	Chemistry of Cosmetics	CC20S2			<input checked="" type="checkbox"/>	Preparation of cream.	<input checked="" type="checkbox"/>	Preparation of hair oils and hair dyes.	To understand the constituents and preparation of cosmetics.
158	Major Core V : Organic Chemistry - III	CC1751	<input checked="" type="checkbox"/>	Demonstration on the characterisation of compounds.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Making grain carpet for carbohydrates and organic aromatic compounds.	To learn poly nuclear and heterocyclic compounds.

159	Major Core VI : Inorganic Chemistry - II	CC1752	<input checked="" type="checkbox"/>	Detecting the amount of radiation in substances.			<input checked="" type="checkbox"/>	Group work on poly valency of vanadium.	To study the characteristics of p-block elements, noble gases and their compounds.
160	Major Core VII : Physical Chemistry - II	CC1753	<input checked="" type="checkbox"/>	Calculating the symmetry operations of the molecules as a group work.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Students presentation - isothermal, adiabatic, isobaric and isochoric, reversible and irreversible process.	To learn the principles of thermodynamics and group theory.
161	Major Elective III a) : Green Chemistry	CC1754	<input checked="" type="checkbox"/>	Demonstration of experiments using green method.			<input checked="" type="checkbox"/>	Paper presentation on green synthesis of Adipic acid, Catechol, Benzoyl bromide, Acetaldehyde, Citral, Ibuprofen and	To remember techniques of green chemistry.
162	Major Elective III b) : Applied Chemistry	CC1754	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand the industrial applications of electro chemistry.
163	Major Elective III c) : Leather Chemistry	CC1754	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand the process of tanning, properties and uses of leather.
164	Chemistry for Competitive Examinations - I	CSK175	<input checked="" type="checkbox"/>	Model making on impact of air pollution.			<input checked="" type="checkbox"/>	Prepare periodic table representing metals and non-metals.	To train students for competitive examinations.
165	Major Core VIII : Organic Chemistry - IV	CC1761	<input checked="" type="checkbox"/>	Demonstration of Photochemical experiments	<input checked="" type="checkbox"/>	Preparing and demonstrating exhibits	<input checked="" type="checkbox"/>	Assignment on notation for optical isomers.	To understand the spectroscopic analysis of organic compounds.
166	Major Core IX : Inorganic Chemistry -III	CC1762	<input checked="" type="checkbox"/>	Drawing the Crystal field splitting of complexes.			<input checked="" type="checkbox"/>	Simple methods to determine errors.	To know about the co-ordination compounds.
167	Major Core X : Physical Chemistry - III	CC1763	<input checked="" type="checkbox"/>	Cell representation and calculation of electrode potential values.			<input checked="" type="checkbox"/>	Analysing samples by spectroscopic methods.	To impart knowledge on electrochemistry and photochemistry.
168	Major Elective IV a) : Bio Chemistry	CC1764	<input checked="" type="checkbox"/>	Demonstration on spot tests of biomolecules.			<input checked="" type="checkbox"/>	Simple experiments to determine the glucose in serum.	To know the functions of lipids, proteins and amino acids.
169	Major Elective IV b) : Instrumental methods	CC1764	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the instrumental methods to analyse samples.
170	Major Elective IV c) : Forensic Chemistry	CC1764	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the importance of forensic science.
171	Major Practical V : Organic Estimation and Inorganic Semi-micro Analysis	CC17P5	<input checked="" type="checkbox"/>	Demonstration of experiments.			<input checked="" type="checkbox"/>	Demonstration on estimation of organic compounds .	To understand the method of Colorimetric and Spectrophotometric analysis.
172	Major Practical VI : Gravimetric Analysis and Inorganic complex preparation	CC17P6					<input checked="" type="checkbox"/>	Demonstration of gravimetric analysis.	To enhance the skill in gravimetric analysis and complex preparation.
173	Major Practical VII : Physical Chemistry	CC17P7					<input checked="" type="checkbox"/>	Demonstration on determination of molecular weight.	To enhance the skill in determination of molecular weight.
174	Core Project	CC17PR					<input checked="" type="checkbox"/>	Preparation and analysing of new compounds.	To gain skill in research.
175	Chemistry for Competitive Examinations	CSK176	<input checked="" type="checkbox"/>	Group work in writing the electronic configurations of elements.			<input checked="" type="checkbox"/>		To gain knowledge for competitive examinations.
176	Core I : Structure and Bonding	PG2011	<input checked="" type="checkbox"/>	Group work on hybridisation of molecules.	<input checked="" type="checkbox"/>	Preparation of artificial gem stones.	<input checked="" type="checkbox"/>	Grain carpet competition - Drawing the structure and bonding in molecules.	To understand the structure and bonding in inorganic compounds.

177	Core II : Reaction Mechanism and Stereochemistry	PG2012	<input checked="" type="checkbox"/>	Drawing energy level diagram of simple organic reactions.	<input checked="" type="checkbox"/>	Preparation of synthetic enamines.	<input checked="" type="checkbox"/>	Demonstration on stereochemistry of molecules.	To understand the basic concepts of organic compounds.
178	Core III : Chemical Kinetics and Electrochemistry	PG2013	<input checked="" type="checkbox"/>	Peer group teaching on kinetics of reactions.	<input checked="" type="checkbox"/>	Fabrication of simple batteries.	<input checked="" type="checkbox"/>	Model making on batteries and fuel cells.	To understand the concepts of chemical kinetics, catalysis, photochemistry and electrochemistry.
179	Elective I a) : Analytical Chemistry	PG2014	<input checked="" type="checkbox"/>	Demonstration of separation of compounds using Column chromatography.	<input checked="" type="checkbox"/>	Hands on training on writing project report.	<input checked="" type="checkbox"/>	Demonstration on different chromatographic techniques.	To understand the principle and instrumentation of various analytical techniques.
180	Elective I b) : Electrochemistry	PG2015	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To acquire knowledge about industrial electrochemistry and its applications.
181	Core IV : Coordination Chemistry	PG2021	<input checked="" type="checkbox"/>	Poster presentation on crystal field theory.	<input checked="" type="checkbox"/>	Synthesis of inorganic complexes.	<input checked="" type="checkbox"/>	Model making of octahedral complexes.	To evaluate the magnetic and spectral properties of complexes.
182	Core II : Reaction Mechanism and Ster	PG2022	<input checked="" type="checkbox"/>	Seminar on oxidation and reduction of organic reactions.			<input checked="" type="checkbox"/>	Assignment on Saytzeff's Vs Hoffman elimination.	To understand the mechanism of organic reactions.
183	Core VI : Quantum Chemistry and Spe	PG2023	<input checked="" type="checkbox"/>	Group discussion on Adsorption.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Demonstration on spectral analysis of compounds.	To understand the concepts of quantum chemistry, spectroscopy and surface chemistry.
184	Elective II a): Research Methodology	PG2024	<input checked="" type="checkbox"/>	Demonstration on the characterisation of compounds.		E-filing of patents.	<input checked="" type="checkbox"/>	Demonstration on Chemistry Softwares.	To understand the sources of literature survey and analytical techniques for documentation of research and cheminformatics for molecular representation.
185	Elective II b) : Nuclear Chemistry	PG2025	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To provide knowledge about the radioactivity and nuclear reactions.
186	Practical I : Inorganic Chemistry - I	PG20P1	<input checked="" type="checkbox"/>	Demonstration on chromatography techniques.			<input checked="" type="checkbox"/>	Demonstration and spot test of inorganic cations.	To understand the methods for the separation and estimation of inorganic compounds.
187	Practical II : Organic Chemistry	PG20P2	<input checked="" type="checkbox"/>	Demonstration on estimation of organic compounds.			<input checked="" type="checkbox"/>	Demonstration and Analysis of organic compounds.	To provide knowledge about the separation and analysis of binary mixtures and estimate various organic substances.
188	Core VII : Organic Spectroscopy	PG2031	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.			<input checked="" type="checkbox"/>	Demonstration and Group discussion of chemical ionization.	To understand the principle and applications of UV, IR, NMR and Mass spectroscopic techniques.
189	Core VIII : Thermodynamics and Group Theory	PG2032	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer .			<input checked="" type="checkbox"/>	Seminar on the Onsager reciprocal relations.	To learn the various concepts of thermodynamics and statistical thermodynamics.
190	Elective III a) : Advanced Topics in Chemistry	PG2033	<input checked="" type="checkbox"/>	Elocution and slogan writing on Global Science for Global Well-being.	<input checked="" type="checkbox"/>	Preparation of supramolecular compounds .	<input checked="" type="checkbox"/>	Poster presentation on nanomaterials for electrochemical sensing applications .	To understand the principles and application of advanced areas in chemistry.
191	Elective III b) : Medicinal Chemistry	PG2034	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To understand the pharmacology and nomenclature of drugs.
192	Project and Viva	PG20PR					<input checked="" type="checkbox"/>	Synthesis and characterization of novel compounds.	To inculcate research aptitude in students.
193	Chemistry for Lecturership exam - I	PC20S1	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.			<input checked="" type="checkbox"/>	Aptitude test.	To equip with knowledge to face the competitive exams.
194	Core IX : Inorganic Spectroscopy, Photochemistry and Organometallics	PG2041	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.	<input checked="" type="checkbox"/>	Preparation of organometallic cataly	<input checked="" type="checkbox"/>	Characterisation of Ru complexes by spectroscopic techniques.	To understand the principle, interpretation and applications of various spectroscopic techniques to inorganic compounds.

195	Core X : Photochemistry and Natural Products	PG2042	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Assignment on synthetic uses of nitro compounds.	To understand various organic reactions with their mechanism and synthetic utility.
196	Core XI : Polymer Chemistry	PG2043	<input checked="" type="checkbox"/>	Industrial visit to polymer industry.	<input checked="" type="checkbox"/>	Preparation of rubber.	<input checked="" type="checkbox"/>	Demonstration on synthesis of polymer.	To understand the concept of polymer chemistry.
197	Elective IV a) : Energy for Future	PG2044	<input checked="" type="checkbox"/>	Creating scientific models from waste materials.	<input checked="" type="checkbox"/>	Construction of solar cells.	<input checked="" type="checkbox"/>	Essay Contest on Renewable Energies for the Eco Sustainability of India.	To understand the importance of various sources of non-conventional energy.
198	Elective IV b) : Nanochemistry	PG2045	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To acquire knowledge about basic concepts of nanochemistry.
199	Practical III: Inorganic Chemistry - II	PG20P3	<input checked="" type="checkbox"/>	Gravimetric and volumetric analysis of ions from mixtures.			<input checked="" type="checkbox"/>	Preparation of inorganic complexes.	To separate and estimate the metal ions from a mixture volumetrically and gravimetrically.
200	Practical IV : Physical Chemistry	PG20P4	<input checked="" type="checkbox"/>	Determination of physical parameters.			<input checked="" type="checkbox"/>	Estimation of strength of solutions.	To apply the principles of conductometry and potentiometry to determine the strength of unknown solutions.
201	Chemistry for Lecturership exam - II	PC20S2	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.			<input checked="" type="checkbox"/>	Aptitude test.	To equip with knowledge to face the competitive exams.
2020-2021									
202	Major Core I : General Chemistry - I	CC2011	<input checked="" type="checkbox"/>	Group work on naming of heterocyclic compounds.			<input checked="" type="checkbox"/>	Creating atomic models.	To interpret various bonding in organic compounds and analyse periodic properties.
203	Allied I Theory: Chemistry for Life Sciences	CA2011	<input checked="" type="checkbox"/>	Calculation of quantum efficiency of photochemical reactions.			<input checked="" type="checkbox"/>	Separation and purification of compounds.	To understand the concepts of biophysical analysis, catalysis and photochemistry.
204	Non Major Elective (NME) :Applied Chemistry - I	CNM201	<input checked="" type="checkbox"/>	Group discussion on the characteristics of a good fertilizer.	<input checked="" type="checkbox"/>	Hands on training on the preparation of soaps and detergents.	<input checked="" type="checkbox"/>	Detection of pesticides in water bodies.	To analyse the characteristics and advantages of agrochemicals.
205	Major Core II : General Chemistry – II	CC2021	<input checked="" type="checkbox"/>	Drawing MO diagrams for ions and molecules.			<input checked="" type="checkbox"/>	Making models for different hybridisation.	To predict the type of bonding and geometry of chemical compounds.
206	Major Practical I : Volumetric Analysis and Inorganic complex Preparation	CC20P1					<input checked="" type="checkbox"/>	Demonstration on Inorganic mixture analysis.	To develop the skill in quantitative analysis.
207	Allied I Theory: Chemistry of Biomolecules	CA2021	<input checked="" type="checkbox"/>	Demonstration on the tests for proteins.	<input checked="" type="checkbox"/>	Demonstration on tests for carbohydrates.	<input checked="" type="checkbox"/>	Identification of protein in food samples.	To apply the chemistry of biomolecules in industry and medicine.
208	Allied II Practical : Volumetric and Organic Substance Analysis	CA20P1					<input checked="" type="checkbox"/>	Demonstration on organic analysis.	To improve the skill in volumetric analysis.
209	Non Major Elective (NME) :Applied Chemistry - II	CNM202	<input checked="" type="checkbox"/>	Demonstration on preparation of prussian blue and alum.	<input checked="" type="checkbox"/>	Hands on training on the preparation of shampoos.	<input checked="" type="checkbox"/>	Workshop on water soluble paints.	To analyse the characteristics of matches ,explosives, paints and pigments.
210	Major Core III: Organic Chemistry - I	CC1731	<input checked="" type="checkbox"/>	Group work on IUPAC system of nomenclature on organic compounds.			<input checked="" type="checkbox"/>	Demonstration of experiments on the preparation of alcohols.	To understand the basic concepts of organic chemistry and hydrocarbons.
211	Major Elective I a) : Dairy Chemistry	CC1732	<input checked="" type="checkbox"/>	Industrial visit to milk plant.	<input checked="" type="checkbox"/>	Industrial visit to dairy plant.	<input checked="" type="checkbox"/>	Preparation of milk products.	To understand the methods of manufacture of dairy products.

212	Major Elective I b): Nutritional Chemistry	CC1732	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		To learn the dairy products and various aspects of health and hygiene.
213	Major Elective I c): Applied Electro Chemistry	CC1732	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		To understand industrial electro chemistry, hydrometallurgy, electro metallurgy and pyrometallurgy.
214	Allied I Theory: General Chemistry	CA1731	<input checked="" type="checkbox"/>	Team work on creating models of the molecules.	<input checked="" type="checkbox"/>	Seminar on aromatic compounds.	<input checked="" type="checkbox"/>	Identification of benzenoid compounds. To acquire knowledge about the atomic structure and bonding in molecules.
215	Soil Science and Agricultural chemistry	CC17S1	<input checked="" type="checkbox"/>	Analysing the soil to find out the factors affecting soil pH.			<input checked="" type="checkbox"/>	Investigation of metals in agricultural and industrial wastes. To acquire knowledge on soil science.
216	Major Core IV : Organic Chemistry - II	CC1741	<input checked="" type="checkbox"/>	Assignment on condensation reaction.	<input checked="" type="checkbox"/>	Assignment on preparation and reactions of monocarboxylic acids.	<input checked="" type="checkbox"/>	Comparative study on mono and dicarboxylic acids. To learn the chemistry of halogenated hydrocarbons.
217	Major Elective II a): Industrial Chemistry	CC1742	<input checked="" type="checkbox"/>	Chart work on refining of petroleum .	<input checked="" type="checkbox"/>	Preparation of natural fertilizer.	<input checked="" type="checkbox"/>	Workshop on oil paints. To understand the importance of chemical and petroleum industries.
218	Major Elective II b): Polymer Chemistry	CC1742	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	To understand the importance and the biomedical application of polymers.
219	Major Elective II c): Pharmaceutical Chemistry	CC1742	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	To impart knowledge about various diseases and their treatment.
220	Allied I Theory: Inorganic and Physical Chemistry	CA1741	<input checked="" type="checkbox"/>	Determining the radiation in the substances using the counters in the reasearch laboratory.	<input checked="" type="checkbox"/>	Talk on Hydrogen as a future fuel.	<input checked="" type="checkbox"/>	Peer group teaching on applications of hydrogen as fuel. To know nuclear chemistry and metallurgy.
221	Major Practical III : Organic Preparation and Determination of Physical Constants	CC17P3					<input checked="" type="checkbox"/>	Determination of physical constants. To understand the principles of preparing organic compounds.
222	Major Practical IV : Organic Analysis	CC17P4					<input checked="" type="checkbox"/>	Demonstration of organic analysis. To develop skills in organic analysis.
223	Allied I Practical : Volumetric and Organic Analysis	CA17P1					<input checked="" type="checkbox"/>	Demonstration of experiments. To understand the principles of qualitative analysis.
224	Chemistry of Cosmetics	CC17S2			<input checked="" type="checkbox"/>	Survey on quality control of cosmetics in India.	<input checked="" type="checkbox"/>	Preparation of natural flavours. To understand the constituents and preparation of cosmetics.
225	Major Core V : Organic Chemistry - III	CC1751	<input checked="" type="checkbox"/>	Album work on the structures of biomolecules.	<input checked="" type="checkbox"/>	Assignment on drug development.	<input checked="" type="checkbox"/>	Comparison of mono, di and polysaccharrides. To learn poly nuclear and heterocyclic compounds.
226	Major Core VI : Inorganic Chemistry - II	CC1752	<input checked="" type="checkbox"/>	Detecting the radiation of substances.			<input checked="" type="checkbox"/>	Group work on poly valency of vanadium. To study the characteristics of p-block elements, noble gases and their compounds.
227	Major Core VII : Physical Chemistry - II	CC1753	<input checked="" type="checkbox"/>	Chart work on Carnot's cycle.	<input checked="" type="checkbox"/>	Discussion on the graphical representation of different types of solutions.	<input checked="" type="checkbox"/>	Construction of group multiplication table for simple molecules. To learn the principles of thermodynamics and group theory.
228	Major Elective III a): Green Chemistry	CC1754	<input checked="" type="checkbox"/>	Demonstration on green experiments.			<input checked="" type="checkbox"/>	Paper presentation. To remember the important techniques and green synthesis of compounds.
229	Major Elective III b): Applied Chemistry	CC1754	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	To understand the industrial applications of electro chemistry.

230	Major Elective III c): Leather Chemistry	CC1754	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		To understand the process of tanning, properties and uses of leather.	
231	*SBC – Chemistry for Competitive Exam	CSK175	<input checked="" type="checkbox"/>	Model making on impact of air pollution.		<input checked="" type="checkbox"/>	Assembling of allotropic forms of carbon.	To train students for competitive examinations.	
232	Major Core VIII : Organic Chemistry - IV	CC1761	<input checked="" type="checkbox"/>	Demonstration of Photochemical experiments.	<input checked="" type="checkbox"/>	Synthesis of synthetic dyes.	<input checked="" type="checkbox"/>	Representing the confirmations of organic compounds.	To understand the spectroscopic analysis of organic compounds.
233	Major Core IX : Inorganic Chemistry - III	CC1762	<input checked="" type="checkbox"/>	Drawing the Crystal field splitting diagram of complexes .			<input checked="" type="checkbox"/>	Simple methods to determine errors.	To know the nomenclature, isomerism in co-ordination compounds, the theories and stability of metal complexes.
234	Major Core X : Physical Chemistry - III	CC1763	<input checked="" type="checkbox"/>	Cell representation and calculation of electrode potential values.			<input checked="" type="checkbox"/>	Analysing samples by spectroscopic methods.	To impart knowledge on electrochemistry and photochemistry.
235	Major Elective IV a): Bio Chemistry	CC1764	<input checked="" type="checkbox"/>	Group Discussion on the biochemical functions of biomolecules.			<input checked="" type="checkbox"/>	Experiments to classify carbohydrates.	To know the functions of lipids, proteins and amino acids.
236	Major Elective IV b): Instrumental methods	CC1764	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the instrumental methods to analyse samples.
237	Major Elective IV c): Forensic Chemistry	CC1764	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the importance of forensic science.
238	Major Practical V : Organic Estimation and Inorganic Semi-Micro Analysis	CC17P5					<input checked="" type="checkbox"/>	Demonstration of experiments on the preparation of alcohols.	To understand the principle of Colorimetric and Spectrophotometric analysis.
239	Major Practical VI : Gravimetric Analysis and Inorganic Complex Preparation	CC17P6					<input checked="" type="checkbox"/>	Demonstration of experiments on gravimetric analysis.	To enhance the skill in gravimetric analysis and complex preparation.
240	Major Practical VII : Physical Chemistry	CC17P7					<input checked="" type="checkbox"/>	Demonstration of experiments to determine the molecular weight.	To enhance the skill in determine the molecular weight.
241	Project and Viva	CC17PR					<input checked="" type="checkbox"/>	Preparation and analysing of new compounds.	To gain skill in research.
242	*SBC – Chemistry for Competitive Exam -II	CSK176	<input checked="" type="checkbox"/>	Group work in writing the electronic configurations of elements.			<input checked="" type="checkbox"/>	Construction of periodic table.	To gain knowledge for competitive examinations.
243	Core I : Structure and Bonding	PG2011	<input checked="" type="checkbox"/>	Group work on Hybridisation of molecules.	<input checked="" type="checkbox"/>	Synthesis of Crystals.	<input checked="" type="checkbox"/>	Grain carpet competition - drawing the structure and bonding in molecules.	To understand the structure and bonding in inorganic compounds.
244	Core II : Reaction Mechanism and Stereochemistry	PG2012	<input checked="" type="checkbox"/>	Drawing energy diagram of simple organic reactions.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Demonstration with models.	To understand the basic concepts of reaction mechanisms, stereochemistry and conformation in organic compounds.
245	Core III : Chemical Kinetics and Electrochemistry	PG2013	<input checked="" type="checkbox"/>	Derivation of equations on the blackboard.	<input checked="" type="checkbox"/>	Construction of fuel cells.	<input checked="" type="checkbox"/>	Peer teaching on rate of reactions.	To understand the concepts of chemical kinetics, catalysis, photochemistry and electrochemistry.
246	Elective I a) : Analytical Chemistry	PG2014	<input checked="" type="checkbox"/>	Demonstration of separation of compounds using Column chromatography.	<input checked="" type="checkbox"/>	Hands on training on writing project report.	<input checked="" type="checkbox"/>	Demonstration on chromatographic methods.	To understand the principle and instrumentation of various analytical techniques.
247	Elective I b) : Electrochemistry	PG2015	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To acquire knowledge about industrial electrochemistry and its applications.

248	Core IV : Coordination Chemistry	PG2021	<input checked="" type="checkbox"/>	Poster presentation on crystal field theory.	<input checked="" type="checkbox"/>	Synthesis of inorganic complexes.	<input checked="" type="checkbox"/>	Model making of octahedral complexes.	To evaluate the magnetic and spectral properties of complexes.
249	Core II : Reaction Mechanism and Stereochemistry	PG2022	<input checked="" type="checkbox"/>	Seminar on oxidation and reduction of organic reactions.			<input checked="" type="checkbox"/>	Assignment on Saytzeff and Bredt's rule.	To understand the mechanism of organic reactions.
250	Core VI : Quantum Chemistry and Spectroscopy	PG2023	<input checked="" type="checkbox"/>	Spectral analysis of compounds.	<input checked="" type="checkbox"/>	Synthesis of surface active reagents.	<input checked="" type="checkbox"/>	Assignment on membrane equilibria.	To understand the concepts of quantum chemistry, spectroscopy and surface chemistry.
251	Elective II a): Research Methodology	PG2024	<input checked="" type="checkbox"/>	Demonstration on the characterisation of compounds.	<input checked="" type="checkbox"/>	E-filing of patents.	<input checked="" type="checkbox"/>	Demonstration of Chemistry Softwares.	To understand the sources of literature survey and analytical techniques for documentation of research and cheminformatics for molecular representation.
252	Elective II b) : Nuclear Chemistry	PG2025	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To provide knowledge about the radioactivity and nuclear reactions.
253	Practical I : Inorganic Chemistry - I	PG20P1	<input checked="" type="checkbox"/>	Demonstration on chromatography techniques in the laboratory.			<input checked="" type="checkbox"/>	Demonstration and Spot test.	To understand the methods for the separation and estimation of inorganic compounds.
254	Practical II : Organic Chemistry	PG20P2	<input checked="" type="checkbox"/>	Demonstration on estimation of organic compounds.			<input checked="" type="checkbox"/>	Demonstration and Analysis of organic compounds.	To provide knowledge about the separation and analysis of binary mixtures and estimate various organic substances.
255	Core VII : Organic Chemistry – III	PG1731	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.			<input checked="" type="checkbox"/>	Demonstration and Group discussion of UV-Visible spectroscopy.	To gain knowledge about the principles involved in UV, NMR and Mass spectroscopy and learn the uses of heterocyclic compounds, reagents in organic synthesis.
256	Core VIII : Physical Chemistry –III	PG1732	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.			<input checked="" type="checkbox"/>	Seminar on the application of group theory to normal mode analysis of H ₂ O and NH ₃ .	To apply group theory to molecules and study the principle and applications of microwave and photoelectron spectroscopy.
257	Elective III a) : Advanced Topics in Chemistry	PG1733	<input checked="" type="checkbox"/>	Preparation of nanoparticles.	<input checked="" type="checkbox"/>	Synthesis of antipyretics.	<input checked="" type="checkbox"/>	Seminar on Atom economy.	To acquire knowledge about various latest fields in chemistry.
258	Elective III b) : Medicinal Chemistry	PG1734	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To understand the pharmacology and nomenclature of drugs.
259	Project and Viva	PG17PR					<input checked="" type="checkbox"/>	Synthesis, characterisation and analysis of newly synthesised compounds.	To inculcate research aptitude in students.
260	Chemistry for Lecturership exam - I	PC17S1	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.			<input checked="" type="checkbox"/>	Identification of point groups.	To equip with knowledge to face the competitive exams.
261	Core IX : Organic Chemistry – IV	PG1741	<input checked="" type="checkbox"/>	Group discussion on preparation and properties of alkaloids.		Isolation of alkaloids from natural sources	<input checked="" type="checkbox"/>	Seminar on retrosynthetic analysis.	To impart idea about retrosynthetic analysis and pericyclic reactions.
262	Core X : Inorganic Chemistry – III	PG1742	<input checked="" type="checkbox"/>	Interpretation of spectra.			<input checked="" type="checkbox"/>	Demonstration on NMR Spectroscopy.	To gain knowledge about various spectroscopic techniques and nuclear reactions.
263	Core XI : Physical Chemistry –IV	PG1743	<input checked="" type="checkbox"/>	Student's presentation on nanocatalyst.			<input checked="" type="checkbox"/>	Seminar on bioelectrochemistry.	To know the importance of various spectroscopic techniques and the structure of crystals.
264	Elective IV a) : Energy for the Future	PG1744	<input checked="" type="checkbox"/>	Model making of wind mills.	<input checked="" type="checkbox"/>	Fabrication of solar cells.	<input checked="" type="checkbox"/>	Assignment on biomass conversion techniques.	To enlighten the students with knowledge of solar radiation and its measurement.
265	Elective IV b) : Nanochemistry	PG1745	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand and learn the applications of nanodevices, carbon clusters.

266	Practical III: Gravimetric analysis and Inorganic preparations	PG17P3	<input checked="" type="checkbox"/>	Demonstration on volumetric and gravimetric analysis.		<input checked="" type="checkbox"/>	Demonstration on inorganic complex preparations.	To carry out the titrimetric and gravimetric analysis.	
267	Practical IV : Physical Chemistry	PG17P4	<input checked="" type="checkbox"/>	Demonstration on potentiometric titrations.		<input checked="" type="checkbox"/>	Demonstration on estimation of acids by conductometric method.	To perform and analyze the titration techniques.	
268	Chemistry for Lecturership exam - II	PC17S2	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.		<input checked="" type="checkbox"/>	Assignment on supramolecular chemistry.	To equip with knowledge to face the competitive exams.	
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269	Major Core I : Inorganic Chemistry - I	CC1711	<input checked="" type="checkbox"/>	Group work on finding the hybridization of atomic orbitals and geometry of molecules on the basis	<input checked="" type="checkbox"/>	Determination of hardness of water.	<input checked="" type="checkbox"/>	Seminar presentation on extraction of lithium.	To understand the various types of chemical bond formation in molecules and periodic properties.
270	Allied I Theory: General Chemistry	CA1711	<input checked="" type="checkbox"/>	Apply VB and VSEPR theory for determining the shape and hybridisation of the molecules as a	<input checked="" type="checkbox"/>	Preparation of new organic compounds.	<input checked="" type="checkbox"/>	Competition on electronic configuration of elements.	To acquire knowledge about the atomic structure and bonding in molecules.
271	NMEC : Molecules of Life	CNM171	<input checked="" type="checkbox"/>	Demonstration on spot tests of biomolecules.	<input checked="" type="checkbox"/>	Testing of glucose level in blood.	<input checked="" type="checkbox"/>	Group Discussion on tests for carbohydrates.	To understand the various aspects of fatty acids, lipids, amino acids, proteins and nucleic acid.
272	Major Core II : Physical Chemistry - I	CC1721	<input checked="" type="checkbox"/>	Making models on different crystal lattices.	<input checked="" type="checkbox"/>	Demonstration on qualitative analysis techniques.	<input checked="" type="checkbox"/>	Model making competition.	To acquire knowledge about gaseous state, liquid state and solid state.
273	Major Practical I : Volumetric Analysis – I	CC17P1					<input checked="" type="checkbox"/>	Demonstration of experiments on volumetric analysis.	To enhance the skill in volumetric analysis.
274	Major Practical I : Volumetric Analysis – II	CC17P2					<input checked="" type="checkbox"/>	Demonstration of experiments on Complexometric Titrations using EDTA	To enhance the skill in volumetric analysis.
275	Allied I Theory: Inorganic and Physical Chemistry	CA1721	<input checked="" type="checkbox"/>	Seminar on applications of radioactivity.	<input checked="" type="checkbox"/>	Determination of hardness of water.	<input checked="" type="checkbox"/>	Group discussion on radioactivity.	To know nuclear chemistry and metallurgy.
276	Allied Chemistry Practical : Volumetric and Organic Substance Analysis	CA17P1					<input checked="" type="checkbox"/>	Demonstration of experiments on Acidimetry and Alkalimetry.	To understand the principles of qualitative analysis.
277	Fuel Chemistry	CNM172	<input checked="" type="checkbox"/>	Chart work on refining of petroleum .	<input checked="" type="checkbox"/>	Demonstration of biogas production.	<input checked="" type="checkbox"/>	Mind map on various types of fuels.	To gain knowledge on different types of fuels, applications of fuels and petrochemicals.
278	Major Core III : Organic Chemistry - I	CC1731	<input checked="" type="checkbox"/>	Group work on IUPAC system of nomenclature on organic compounds.			<input checked="" type="checkbox"/>	Demonstration of experiments to prepare organic compounds.	To understand the basic concepts of organic chemistry and hydrocarbons.
279	Major Elective I a) : Dairy Chemistry	CC1732	<input checked="" type="checkbox"/>	Industrial visit to milk plant.	<input checked="" type="checkbox"/>	Estimation of lactose in milk.	<input checked="" type="checkbox"/>	Determination of acidity and moisture content of milk.	To understand the various processing of milk.
280	Major Elective I b) : Nutritional Chemistry	CC1732	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the dairy products and various aspects of health and hygiene.
281	Major Elective I c) : Applied Electro Chemistry	CC1732	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To understand industrial electro chemistry, hydrometallurgy, electro metallurgy and pyrometallurgy.
282	Allied I Theory: General Chemistry	CA1731	<input checked="" type="checkbox"/>	Apply VB and VSEPR theory for determining the shape and hybridisation of the molecules as a	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Assignment on hybridisation.	To acquire knowledge about the atomic structure and bonding in molecules.

283	Soil Science and Agricultural Chemistry	CC17S1	<input checked="" type="checkbox"/>	Analysing the soil to find out the factors affecting soil pH.			<input checked="" type="checkbox"/>	Survey on various types of soil in the locality.	To acquire knowledge on soil science.
284	Major Core IV : Organic Chemistry - II	CC1741	<input checked="" type="checkbox"/>	Assignment on nucleophilic addition reaction.	<input checked="" type="checkbox"/>	Preparation of cosmetics and food preservatives.	<input checked="" type="checkbox"/>	Interconversion of succinic, tartaric, maleic and malic acids.	To learn the chemistry of halogenated hydrocarbons.
285	Major Elective II a): Industrial Chemistry	CC1742	<input checked="" type="checkbox"/>	Chart work on refining of petroleum.	<input checked="" type="checkbox"/>	Synthesis of natural rubber latex products.	<input checked="" type="checkbox"/>	Industrial visit - petrochemical and glass industry.	To understand the applications of chemical and petroleum industries.
286	Major Elective II b): Polymer Chemistry	CC1742	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand the importance and the biomedical application of polymers.
287	Major Elective II c): Pharmaceutical Chemistry	CC1742	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To impart knowledge about various diseases and their treatment.
288	Major Practical III : Organic Preparation and Determination of Physical Constants	CC17P3					<input checked="" type="checkbox"/>	Determination of physical constants of organic compounds.	To determine the physical constants of organic compounds with maximum accuracy.
289	Major Practical IV : Organic Analysis	CC17P4					<input checked="" type="checkbox"/>	Demonstration of experiments on organic qualitative analysis. Systematic analysis of the organic compound.	To develop skills in organic analysis.
290	Allied I Theory: Inorganic and Physical Chemistry	CA1741	<input checked="" type="checkbox"/>	Determining the radiation in the substances using the counters in the research laboratory.	<input checked="" type="checkbox"/>	Analysis of BOD,COD and DO in water samples.	<input checked="" type="checkbox"/>	Exposure to the instrumentation analysis.	To know nuclear chemistry and metallurgy.
291	Allied Chemistry Practical : Volumetric and Organic Substance Analysis	CA17P1					<input checked="" type="checkbox"/>	Demonstration of experiments on organic substance analysis.	To understand the principles of qualitative analysis.
292	Chemistry of Cosmetics	CC17S2			<input checked="" type="checkbox"/>	Preparation of face cream.	<input checked="" type="checkbox"/>	Synthesising natural cosmetics.	To understand the constituents and preparation of cosmetics.
293	Major Core V : Organic Chemistry - III	CC17S1	<input checked="" type="checkbox"/>	Album work on the structures of biomolecules.	<input checked="" type="checkbox"/>	Synthesis of simple drugs.	<input checked="" type="checkbox"/>	Model making on starch and cellulose.	To learn poly nuclear and heterocyclic compounds.
294	Major Core VI : Inorganic Chemistry - II	CC17S2	<input checked="" type="checkbox"/>	Determining the radiation in the substances using the counters in the research laboratory.			<input checked="" type="checkbox"/>	Group work on poly valency of vanadium.	To study the characteristics of p-block elements, noble gases and their compounds.
295	Major Core VII : Physical Chemistry - II	CC17S3	<input checked="" type="checkbox"/>	Chart work on Carnot's cycle.	<input checked="" type="checkbox"/>	Water purification by reverse osmosis.	<input checked="" type="checkbox"/>	Identification of point group for simple molecules.	To learn the principles of thermodynamics and group theory.
296	Major Elective III a): Green Chemistry	CC17S4	<input checked="" type="checkbox"/>	Demonstration of experiments using green method.			<input checked="" type="checkbox"/>	Paper presentation on oxidation of toluene and alcohols.	To remember the important techniques and green synthesis of compounds.
297	Major Elective III b): Applied Chemistry	CC17S4	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand the industrial applications of electro chemistry.
298	Major Elective III c): Leather Chemistry	CC17S4	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand the process of tanning, properties and uses of leather.
299	*SBC – Chemistry for Competitive Exam	CSK175	<input checked="" type="checkbox"/>	Model making on impact of air pollution.			<input checked="" type="checkbox"/>	Survey on air pollution in the locality.	To train students for competitive examinations to get jobs and admission for higher studies.
300	Major Core VIII : Organic Chemistry - IV	CC1761	<input checked="" type="checkbox"/>	Demonstration of photochemical experiment	<input checked="" type="checkbox"/>	Preparation of dyes.	<input checked="" type="checkbox"/>	Preparation of synthetic dyes.	To understand the spectroscopic analysis of organic compounds.

301	Major Core IX : Inorganic Chemistry - III	CC1762	<input checked="" type="checkbox"/>	Seminar presentation on crystal field splitting of complexes.			<input checked="" type="checkbox"/>	Simple methods to determine errors.	To know the nomenclature, isomerism in co-ordination compounds, the theories and stability of metal complexes.
302	Major Core X : Physical Chemistry - III	CC1763	<input checked="" type="checkbox"/>	Cell representation and calculation of electrode potential values.			<input checked="" type="checkbox"/>	Analysing samples by spectroscopic methods.	To impart knowledge on electrochemistry and photochemistry.
303	Major Elective IV a): Bio Chemistry	CC1764	<input checked="" type="checkbox"/>	Group Discussion on the biochemical functions of biomolecules.			<input checked="" type="checkbox"/>	Experiments to classify carbohydrates.	To know the functions of lipids, proteins and amino acids.
304	Major Elective IV b): Instrumental methods	CC1764	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the instrumental methods to analyse samples.
305	Major Elective IV c): Forensic Chemistry	CC1764	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To learn the importance of forensic science.
306	Major Practical V : Organic Estimation and Inorganic Semi-Micro Analysis	CC17P5					<input checked="" type="checkbox"/>	Demonstration of experiments to estimate organic compounds.	To understand the method of colorimetric and Spectrophotometric analysis.
307	Major Practical VI: Gravimetric Analysis and Inorganic Complex Preparation	CC17P6					<input checked="" type="checkbox"/>	Demonstration of experiments on gravimetric analysis and complex preparation.	To enhance the skill in gravimetric analysis and complex preparation.
308	Major Practical VII : Physical Chemistry	CC17P7					<input checked="" type="checkbox"/>	Demonstration of experiments to determine the molecular weight of the compounds.	To enhance the skill in determine molecular weight.
309	Project and Viva	CC17PR					<input checked="" type="checkbox"/>	Preparation and analysing of new compounds .	To gain skill in research.
310	Chemistry for Competitive Examinations	CSK176	<input checked="" type="checkbox"/>	Group work in writing the electronic configurations of elements.			<input checked="" type="checkbox"/>	Demonstration on the causes of air pollution.	To gain knowledge for competitive examinations.
311	Core I : Organic Chemistry –I	PG1711	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Synthesis of organic compounds.	<input checked="" type="checkbox"/>	Model making of organic compounds.	To enable the students, know the methods of addition in alkenes and their mechanisms, stereochemistry of organic compounds.
312	Core II : Inorganic Chemistry – I	PG1712	<input checked="" type="checkbox"/>	Group discussion on optical and electrical properties of semiconductors.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Presentation on VB theory.	To learn the preparation, properties and structures of some Inorganic compounds.
313	Core III : Physical Chemistry – I	PG1713	<input checked="" type="checkbox"/>	Peer teaching on deriving the adsorption isotherms.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Group discussion on laws of thermodynamics.	To gain more knowledge about thermodynamics, Chemical kinetics, surfaces and surface active agents.
314	Elective I a) : Instrumental Methods of Analysis	PG1714	<input checked="" type="checkbox"/>	Demonstration on electrogravimetric analysis in the laboratory.	<input checked="" type="checkbox"/>	Seperation of components present in the sample using Chromatographic techniques.	<input checked="" type="checkbox"/>	Industrial visit - Chromatographic techniques.	To learn the principles, instrumentation and applications of various analytical techniques.
315	Elective I b) : Electrochemistry	PG1715	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To acquire knowledge about industrial electrochemistry and their applications.
316	Core IV : Organic Chemistry – II	PG1721	<input checked="" type="checkbox"/>	Assignment on the structure of proteins.	<input checked="" type="checkbox"/>	Analysis of HDL and LDL in blood.	<input checked="" type="checkbox"/>	Group discussion on Aromaticity.	To study the nucleophilic substitution, elimination reactions and aromaticity of organic reactions.
317	Core V : Inorganic Chemistry – II	PG1722	<input checked="" type="checkbox"/>	Seminar on blue copper proteins.	<input checked="" type="checkbox"/>	Synthesis of chelation compounds.	<input checked="" type="checkbox"/>	Seminar on photochemistry of Ruthenium polypyridyl.	To provide an in-depth knowledge about lanthanides and actinides, photochemistry and spectroscopy of some Inorganic compounds.
318	Core VI : Physical Chemistry – II	PG1723	<input checked="" type="checkbox"/>	Drawing Jablonski diagram in groups and highlighting the various photochemical processes.			<input checked="" type="checkbox"/>	Assignment on chemiluminescence.	To understand the concepts of electrochemistry and photochemical reactions.

319	Elective II a) : Research Methodology	PG1724	<input checked="" type="checkbox"/>	Demonstration of Chemistry Softwares.	<input checked="" type="checkbox"/>	Hands on training on writing project report.	<input checked="" type="checkbox"/>	Demonstration of Chemistry Softwares.	To provide basic knowledge on research analysis and chemistry softwares.
320	Elective II b) : Nuclear Chemistry	PG1725	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To gain knowledge on applications of radio isotopes in industries and daily life.
321	Practical I : Organic Chemistry	PG17P1	<input checked="" type="checkbox"/>	Demonstration on quantitative estimation.	<input checked="" type="checkbox"/>	Preparation of solid compounds.	<input checked="" type="checkbox"/>	Demonstration on qualitative analysis of organic mixtures.	To provide knowledge about the separation and analysis of binary mixtures.
322	Practical II : Inorganic Chemistry	PG17P2	<input checked="" type="checkbox"/>	Demonstration on complexometric titrations.			<input checked="" type="checkbox"/>	Demonstration on Spot test.	To impart knowledge in semi micro qualitative analysis of inorganic mixture.
323	Core VII : Organic Chemistry – III	PG1731	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.			<input checked="" type="checkbox"/>	Group discussion on interpretation of spectra.	To gain knowledge about the principles involved in UV, NMR and Mass spectroscopy and learn the uses of heterocyclic compounds, reagents in organic synthesis.
324	Core VIII : Physical Chemistry –III	PG1732	<input checked="" type="checkbox"/>	Demonstration on the structural elucidation of compounds using Spectrophotometer.			<input checked="" type="checkbox"/>	Create models and apply it on group theory.	To apply group theory to molecules and study the principle and applications of microwave and photoelectron spectroscopy.
325	Elective III a) : Advanced Topics in Chemistry	PG1733	<input checked="" type="checkbox"/>	Preparation of nanoparticles.	<input checked="" type="checkbox"/>	Synthesis of antipyretics.	<input checked="" type="checkbox"/>	Green synthesis of nano particles.	To acquire knowledge about various latest fields in chemistry.
326	Elective III b) : Medicinal Chemistry	PG1734	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		To understand the pharmacology and nomenclature of drugs.
327	Project and Viva	PG17PR					<input checked="" type="checkbox"/>	Biological applications of novel compounds.	To inculcate research aptitude in students.
328	Chemistry for Lecturership exam - I	PC17S1	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.			<input checked="" type="checkbox"/>	Aptitude test.	To equip with knowledge to face the competitive exams.
329	Core IX : Organic Chemistry – IV	PG1741	<input checked="" type="checkbox"/>	Synthesis of organic compounds using rearrangements.			<input checked="" type="checkbox"/>	Seminar on photochemical reactions of ketones.	To impart idea about retrosynthetic analysis and pericyclic reactions.
330	Core X : Inorganic Chemistry – III	PG1742	<input checked="" type="checkbox"/>	Demonstration on working of solar cells.			<input checked="" type="checkbox"/>	Seminar on Doppler Effect.	To gain knowledge about various spectroscopic techniques and nuclear reactions.
331	Core XI : Physical Chemistry –IV	PG1743	<input checked="" type="checkbox"/>	Model making of different types of crystal lattices.			<input checked="" type="checkbox"/>	Group discussion on advantages of lasers in Raman spectroscopy.	To know the importance of various spectroscopic techniques and the structure of crystals.
332	Elective IV a) : Energy for the Future	PG1744	<input checked="" type="checkbox"/>	Model making of wind mills.	<input checked="" type="checkbox"/>	Construction of solar cells.	<input checked="" type="checkbox"/>	Assignment on wind energy conversion.	To enlighten the students with knowledge of solar radiation and its measurement.
333	Elective IV b) : Nanochemistry	PG1745	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		To understand and learn the applications of nanodevices, carbon clusters.
334	Practical III: Gravimetric analysis and Inorganic preparations	PG17P3	<input checked="" type="checkbox"/>	Demonstration on volumetric and gravimetric analysis.			<input checked="" type="checkbox"/>	Preparation of inorganic complexes.	To carry out the titrimetric and gravimetric analyses.
335	Practical IV : Physical Chemistry	PG17P4	<input checked="" type="checkbox"/>	Determination of physical parameters..			<input checked="" type="checkbox"/>	Demonstration on estimation of the strength of strong and weak acids by conductivity method.	To perform and analyze the titration techniques.
336	Chemistry for Lecturership exam - II	PC17S2	<input checked="" type="checkbox"/>	Group discussion and Periodic Assessment.			<input checked="" type="checkbox"/>	Aptitude test.	To equip with knowledge to face the competitive exams.