Govt.ShivalikCollegeNayaNangal

TeachingPlan(2023-24)

Class: **B.Sc.PART-I(Ist Semester)**

Paper:CHEMISTRY

Name: KirtiSharma

Sr.No	Dates	Topics
1.	1 -8- 2023	Atomicstructure-electronicconfiguration,de-broglieequation,heseinberguncertainityprinciple,hund'srule,schrodingerwaveequation,wavefunctions,shieldingeffectandnumericalsbasedonscreeningeffect.
A	9-14 aug 2023	Mathematicalconcept-differentiationandintegration,limits,probability,
3.	17-25 Aug2023	Structureandbonding- hybridisation,resonance,conjugationetc.chemicalbonding1.
4	26-31 Aug2023	Chemistryofnoblegases,alkanesandcycloalkanes
5	1-8 Sep 2023	Gaseousstateandphysicalpropetiesandmol.Structure. Alkynes- types andtheir methods of preparation,physicalandchemicalproperties
6	9-17 Sep 2023	Mechanismof organicreactions- types ofbonds,introductionto different-differentreagents
7	19-30 Sep 2023	Evaluationofanalyticaldata-mean,mode,median,Q-test,F-test,confidencelimitandproblemsbasedonthese.
8.	1-12 Oct 2023	periodicproperties-trendsof periodicpropertiesalongperiodsandgroups,chemicalandphysicalpropertiesofeleme
8	13-20 Oct	Alkenesandcycloalkenes- methods of preparation,physicalandchemicalproperties.
9	21-30 Oct	Liquid stateand liquidcrystal-types of liquid crystals,difference b/w liquids , solids and gases.
10	1-10 Nov	Dienes- types andtheirmethodsofpreparation,physicalandchemicalproperties
11	11-16 Nov	Assignment and project work
12	17-22 Nov	MST-Exam
13	23-31 Nov	Revision&classtest

Govt.ShivalikCollegeNayaNangal

TeachingPlan(2023-24)

Paper: CHEMISTRY

Class:B.scPART-II(3rdSemester)

Name:Dr.SumanKumari,KirtiSharma

Sr.No	Dates	Topics
1.	1-8 Aug2023	Chemistryofelementsof1st transitionseries,characteristicsandpropertiesofD-blockelements.
2.	9-14 Aug2023	Alcohols-physicalandchemicalproperties,metods oftheirpreparationsandmechanisms.
3.	17-25 Aug2023	Thermodynamics1&2-lawsrelatedtothermodynamics,carnotcycleandcarnottheorem.
4	26-31 Aug2023	Aldehydes-nomenclature,physicalandchemicalproperties,mecahismsofreactions.
5	1-8 Sep	Phenols-physicalandchemicalproperties,metodsoftheirpreparationsandmechanisms.
6	9-17 sep	Chemicalequilibrium-thermodynamicderivations, lawof massaction,Le-Chatelier'sprinciple.
7	19-30 Sep	Ketones- physical andchemicalproperties,methodsofpreparations,mechanismsofreactions
8	1-12 Oct	Thermodynamicspart 2-(partb)-conceptofentropy,study of functions relatedto entropy,clausiusinequality equation.
9	13-20 Oct	Chemistryof1st transitionseries -propertiesofelements,theircomplexesand Their stability,coordination no.And their geometry.
10	21-30 Oct	Chemistryoflanthoidsandactinids-generalfeatures,andtheirproperties.
11.	1-10 Nov	MSTexam
12	11-16Nov	Thermodynamis3-lawsofthermodynamics,Nernst equation,Gibbsfunction,Helmholtzfunction,variationsofthesewithP,VandT.
13	17-22Nov	Revision
14	23-31Nov	Class Tests

Govt.ShivalikCollegeNayaNangal

TeachingPlan(2023-24)

Class:B.sc.PART-III (5TH Semester)

Paper:CHEMISTRY

Name:DR.Sumankumari

Sr.No	Dates	Topics
1.	1-8 Aug2023	Metal-ligandbondingintransitionmetalcomplexes-varioustheory&theirlimitationsandCFTtheory.
2.	9-14 Aug2023	Spectroscopy-NMR-basicprinciple,structureanalysisandtheirapplications
3.	17-25 Aug2023	Elementaryquantummechanics-Plank'radiationslaw,photoelectriceffect,schrodingerwaveequation,particleinonedimentionalbox,Q.no.Andtheirimportance.
4	26-31 Aug2023	Magneticpropetiesoftransitionmetalcomplexes-typesofmag.Behaviour,L-Scoupling,magneticmomentanditsapplications
5	1-8 Sep	Organometalliccompounds(Mg,Zn,Li)- methodsofformationandchemicalreactions
6	9-17 sep	Spectroscopy-Rotational&vibrational-basicprinciple,structureanalysisandtheirapplications
7	19-30 Sep	Thermodynamicandkineticaspectsof metalcomplexes-briefoutlineofthermodynamicstabilityofmetalcomplexes&theirreactions.
8	1-12 Oct	Organosulphurcompounds- nomenclature,structuralfeatures, methods offormationandchemicalreactions
9	13-20 Oct	Electronicspectraoftransitionmetalcomplexes-typesofelectronictransition,selectionsruleandOrgel-energyleveldiagram.
10	21-30 Oct	UVSpectroscopy-basicprinciple,structureanalysisandtheirapplications
11	9-12Nov	MSTexam
11	1-10 Nov	Power point Presentation on NMR
12	11-16Nov	IRSpectroscopy-basicprinciple,structureanalysisandtheirapplications
13	17-22Nov	revision
14	23-31Nov	Classtest

Govt.ShivalikCollege Naya NangalTeachingPlan (2022-23)Class:B.Sc.I(SEM-II)

Subject:ChemistryName:KirtiSharma

Sr.No	Dates	Topics
1.	7-9 Feb2023	Stereochemisrtoforg.Compounds-configuration,configuration,enantiomers, diastereomers,mesocompounds,recemicmixture,cisandtrans,E&ZSystemofnomenclsture
2.	12-16	S-blockelements-comparativestudy,featuresofhydrides,complexationtendencies,functionsinbiosystems
3.	17-23	Solutions-types,colligativeproperties,determinationofmol.Wt.Usingcolligativepro
4	24-28	Alkyl&arylhalides-physicalandchemicalproperties,relativereactivitiesofallyl,vinylandarylhalides
5	1-6 Mar2023	Chemicalkinetics-rateofreaction,factorsinfluencingit,orderofdifferentreactions,halflifeperiod,radioactivedecay,
6	8-13	Huckel'sruleofaromaticity
7	14-19	Catalysis-charactristics,types,acidbasecatalysis,enzymecatysis,michaelismenteneq.
8	20-25	Arene&aromaticity-Nomenclature,resonancestructures,MOpicture,Huckelrule,aromaticelectrophilicsubstituionreactions.
9	26-31	Colloidal state - definition,classification, sols:properties, emulsions:types,preparation,gels:classification,preparationetc.
10	1-8 Apr2023	P-Blockelements-gp-13-comparativestudy,compoundsofgp13
11.	9-16	P-block-14-17-comparativestudy,compoundsofgp14to17
12.	17-22	Revision
13.	24-29 Apr2023	MST

Govt.ShivalikCollege

NayaNangalTeachingPlan (2022-23)

Class:B.Sc.PartII(SemesterIV)

Paper:Chemistry

Name:Dr. SumanKumari,Kirti sharma

Sr.No	Dates	Topics
1.	7-11 Feb2023	Coordinationcompounds-Werner'stheory&exp.Verification,effectiveat.No.Concept,chelatesandVBToftransitionmetalcomplexes
2.	12-16 Feb2023	Carboxylicacids-introduction,metodsofpreparation,physicalandchemicalproperties
3.	16-23 Feb2023	Phaseequilibrium-phaserule,phasecomponents,phasediagramofoneandtwocomponentsystem.
4	24-28 Feb2023	Oxidationandreduction-redoxcycleandtheirstability,frost,latimerandpourbaixdiagram,extractionofelements.
5	1-6 Mar2023	Carboxylicacidderivative-introduction,structureandrelativestabilityandreactivityofcarboxylicacidderivative
6	8-13 Mar2023	ElectrochemistryI-a--specificandequivalentconductance,Kohlrauschlaw,arrheniustheory,ostwaldi
7	14-22 Mar 2023	ACID&BASE-varioustheoriesandLewisconceptofacidandbase
8	23-31 Mar2023	Ether&Epoxides-introduction,nomenclature,methodsofpreparation,physical&chemicalproperties,introduction,structureandoccurrenceof(fats,oils&detergents)
9	1-6 Apr2023	Non-aqueoussolvent-physicalpropertiesofsolvent,types,andgenralcharacteristicswithreferecetoliq.Ammonia&sulphurdioxide
10	7-12 Apr2023	Electrochemistry1-b-transportno.,Hittorf'smethod,movingboundarymethod,conductometrictitrationsandconductancemeasurements,soiubilityofsparinglysolublesalts.ElectrochemistryII.
11.	13-17 Apr2023	Nitrocompounds-introduction,nomenclature,methodsofpreparation,physical&chemicalproperties,halonitroaremes
12.	18-22 Apr2023	Amines–introduction,nomenclature,methodsofpreparation,physical&chemicalproperties,stereochemistryofamines,basicityandeffectofsubstituentsonit
13.	24-29 Apr2023	MST

Govt.ShivalikCollege Naya

NangalTeachingPlan(2022-23)

Class:B.Sc.PartIII(SemesterVI)

Paper:chemistry,Name:Dr.SumanKumari

Sr.No	Dates	Topics
1.	7-11 Feb2023	Hardsoftacidbase-Pearson'sHSABconcept,hardnessandsoftnesstheir theoreticalbasis,symbiosis.
2.	14-16 Feb2023	Carbohydrates- introduction,classificationand nomenclature,structurs of glucose,fructose,riboseetc.Ringstructureofglucose,fructose,starchandcellulose
3.	16-23 Feb2023	Ramansppectrum- conceptofpolarizability,rotationalandvib.Ramanspectraofdiatomicmolecules,selectionrule
4	24-28 Feb2023	Bioinorganicchemistry- Essential&traceelements,heamoglobinandmyoglobin,biologicalroleofalkaliand alkaline earth metals,Nitrogen fixation.
5	1-6 Mar2023	Solidstate-Lawsofcrystallography,X-raydiffractionbycrystals,bragg'seq.StructureofNaCl,KCl.
6	8-13 Mar2023	Polymer-preparationbyvarousmethods,addition&condensation polymerisation,natural&syntheticrubber,
7	15-20 Mar2023	Silicones&phosphazenes-preparation,propertiesandclassification ofinorganicpolymersangnatureof bondingin them.
8	21-26 Mar2023	Electronicspectrum-conceptofbondingandantibondingmolecularorbitals,Franck-condonprinciple,selectionsrule ofelectronicspectrum.
9	27-31 Apr2023	Aminoacids,peptides, proteinsand nucleicacids- their introduction andnomenclature,physical&chemicalproperties,
10	1-8 Apr2023	Organometallicchemistry- classification,preparationofLi,Al,Hg,Sn,andTi,mononuclearcarbonylandtheir natureof bonding
11.	10-17 Apr2023	Enolates-introduction,praparation,applicationsofenolatesinorg.Synthesis.
12.	18-23 Apr2023	Photochemistry- Lawsofphotochemistry,qualitativedescriptionoffluorescenceandnonradiativeprocess
13	24-29Apr2023	MST