

Sardar Patel Mahavidyalaya, Chandrapur
Post Graduate Department of Chemistry

Subject: Inorganic Chemistry

Internal Assignment Distribution for M. Sc. – Sem. II

Session:- 2018-19

Sr. No.	Name of Student	Inorganic chemistry Internal Assessment topic
1.	BAIRAGEE PRIYANKA M.	Determining the Energy terms, Spin-orbit (L-S) coupling scheme, Hund's rule, Hole Formulation,
2.	BANWADE SHILPA L.	Derivation of the term symbol for a d ² configuration, Electronic spectra of transition metal complexes – Laporte 'orbital' selection rule, spin selection rule.
3.	GANVIR MAYUR D.	Orgel diagrams for octahedral metal complexes.
4.	GATHE KOMAL C.	Charge transfer spectra, Racah parameters, calculations of 10 Dq, B, β parameters.
5.	GEDAM PORNIMA G.	Tanabe- Sugano Diagrams of octahedral complexes with d ² & d ⁸ configuration.
6.	GIRI NISHA S.	Abnormal magnetic properties, orbital contributions and quenching of orbital angular momentum, spinorbit coupling.
7.	HEPAT HIMANI D.	Magnetic moment, electronic spectra and structure of tetrahalocobalt(II) complexes,
8.	JOSHI PUNAM G.	tetrahedral and octahedral Ni(II) complexes. High spin-low spins crossover.
9.	KAWASE NEHA S.	Substitution reaction in square planer complexes: the trans effect, cis effect.
10.	MADAVI KOMAL S.	Substitution reaction in square planer complexes: steric effect, solvent effect, effect of leaving group, effect of charge, effect of nucleophile, effect of temperature.
11.	MAHAJAN NAYANATAI A.	Trans effect theories, uses of trans-effect, mechanism of substitution reactions in Pt(II) complexes.
12.	MHAISWAL RENUKA S.	Electron transfer reactions. Types of electron transfer reactions, conditions of electron transfer, and mechanism of one electron transfer reactions, outer sphere and inner sphere mechanisms,
13.	NEWARE PALLAVI M.	two electron transfer reactions complimentary and non-complimentary reactions.
14.	PASWAN JYOTI S.	Tunneling effect, cross-reaction, Marcus-Hush theory, bridged activated mechanism.
15.	PATLE PRADIP N.	Structure and bonding, vibrational spectra of metal carbonyls for bonding
16.	PRASAD MEGHA M.	vibrational spectra of metal carbonyls for bonding and structure elucidation, important reaction of metal carbonyls
17.	SATPUTE KAMLAKAR B.	Metal carbonyl clusters with reference to classification and Mono & Binuclear with EAN, synthesis and structures.
18.	SHEIKH ANWARUNANISA	Metal carbonyl clusters with reference to classification and Tri & Tetra nuclear With EAN, synthesis and structures.
19.	THERE JAYRATAN V.	Metal carbonyl clusters with reference to classification and Penta&Hexa nuclear With EAN, synthesis and structures.
20.	WAGHMARE ANJU R.	Nitrosylating agents for synthesis of metal nitrosyls, vibrational spectra for bonding .
21.	WARPATKAR PALLAVI S.	Nitrosylating agents for synthesis of metal nitrosyls, X-ray diffraction studies of transition metal nitrosyls for bonding .
22.	ZADE PRAJAKTA MAROTI	Wilkinson's catalyst and Vaska's compound
23.	GURNULE KUNAL	Structure elucidation, important reactions of transition metal nitrosyls, structure and bonding.
24.	WANDERE ABHISHEK	Dinitrogen and dioxygen complexes.

Mr. P. V. Mandal
Subject In-Charge

Dr.S.V. Madhamshettiwar
Head, Department of Chemistry

Sardar Patel Mahavidyalaya, Chandrapur
Post Graduate Department of Chemistry

Subject: Organic Chemistry, Internal Assignment Distribution for M. Sc. – Sem.II 2018-19

<i>Sr. No.</i>	<i>Name of Student</i>	<i>Organic Chemistry Internal Assessment Topic</i>
1.	Bairagee priyanka M.	Mechanism and stereo chemical aspect of addition reaction involving electrophiles
2.	Banwade shilpa L.	Hydroboration and Michael reaction
3.	Ganvir Mayuri D.	Hydrogenation of double bond and triple bond, mech. And stereochemistry aspect of addition reaction involving in nucleophile
4.	Gathe Komal C.	Give the reaction mechanism of Knoevenagel and Benzoin condensation
5.	Gedam pornima G.	Write a note on Wittig and Perkin reaction
6.	Giri Nish S.	What are free radical. And explain free radicals substitution mechanism of an aromatic and aliphatic substrate
7.	Hepat Himani D.	Explain reactivity in attacking radicals and effect of solvent on reactivity
8.	Joshi punam G.	Give the mechanism of Beckman and Benzil benzilic acid rearrangement reaction
9.	Kawase neha S.	Explain the Reed reaction and Saytzeff and Hoffman rule
10.	Madavi Komal S.	What is Fentons reagent. Explain the reactivity of fentons reagent . Explain Hundsdiecker reaction
11.	Mahajan Nayanatai a.	Mechanism and orientation in pyrolytic mechanism and Hoffman reaction mechanism
12.	Mhaiswal Renuka S.	Explain free radical mechanism and autooxidation
13.	Neware pallavi M.	Write a note on E1 and E2 mechanism
14.	Paswan Jyoti S.	Write E1CB mechanism and orientation of double bond
15.	Patle pradip N.	Explain basic principle of green chemistry
16.	Prasad megha M.	Write a note on Biginelli, Ugi and Passereno reaction
17.	Satpute kamlakar B.	Give synthesis of Paracetamol, Ibuprofen, Styrene, Urethanes
18.	Sheikh anwarunanisa m	Give the synthesis of Wagner-Meerwein , Curtius rearrangement reaction
19.	There Jayratan V.	Write a note on Claisen and Stobbe reaction mechanism
20.	Waghmare Anju R.	Explain neighbouring group assistance and reactivity for aliphatic and aromatic substrate
21.	Warpatkar pallavi S.	What is ammonolysis of ester. Explain Mannich reaction.
22.	Zade prajakta M.	Explain sonochemistry and polymer supported reaction.
23.	Gurnule Kunal	Hydrolysis of ester & amide, Aldol condensation reaction
24.	Wandhare Abhishek	Free radical rearrangement reaction , Sandmeyer reaction .

Miss. A.W.Walke
 Subject In-Charge

Dr.S.V. Madhamshettiwar
 Head, Department of Chemistry

Sardar Patel Mahavidyalaya, Chandrapur
Post Graduate Department of Chemistry
Subject: Physical Chemistry, Internal Assignment Distribution for M. Sc. 1– Sem.II
2018-19

	<i>Name of Student</i>	<i>Physical Chemistry Internal Assignment Topic</i>
1	BAIRAGEE PRIYANKA M.	Variation principle, MO theory applied to H ₂ ⁺ molecule and H ₂ molecule.
2	BANWADE SHILPA L.	Perturbation theory, application of perturbation theory to Helium atom.
3	GANVIR MAYUR D.	Electronic structure of atoms: Russel Sanders terms and coupling schemes, Slater-condon parameter.
4	GATHE KOMAL C.	Term separation energies of the p ⁿ configuration, term separation energies of the d ⁿ configuration.
5	GEDAM PORNIMA G.	Magnetic effects: spin orbit coupling and Zeeman splitting.
6	GIRI NISHA S.	Hybridisation, hybrid orbitals in term of wave functions of s and p orbitals, sp and sp ² hybridisations.
7	HEPAT HIMANI D.	Huckel theory, Huckel theory applied to ethylene, cyclobutadiene, cyclopropenyl radical.
8	JOSHI PUNAM G.	Excess functions for non ideal solutions, Entropy of mixing, enthalpy of mixing.
9	KAWASE NEHA S.	Activity, activity coefficients, Debye Huckel theory for activity coefficients of electrolytic solutions.
10	MADAVI KOMAL S.	Stirling Approximation, Maxwell Boltzmann, Bose Einstein, Fermi Dirac statistics, comparison between three statistics.
11	MAHAJAN NAYANATAI A.	Irreversible Thermodynamic criteria for non equilibrium states, Le Chatelier principle.
12	MHAISWAL RENUKA S.	Conservation of mass and energy in closed and open systems, entropy production.
13	NEWARE PALLAVI M.	Perfect & imperfect crystals, Electronic structure of solids band theory intrinsic and extrinsic defects-point, line, plane defects.
14	PASWAN JYOTI S.	Vacancies-Schottky defects & Frenkel defects, p-n junction.
15	PATLE PRADIP N.	Thermodynamics of Schottky defects & Frenkel defects, colour centre, non-stoichiometric defects.
16	PRASAD MEGHA M.	Superconductor- Meissner effect, BCS theory.
17	SATPUTE KAMLAKAR B.	Solid state reaction-general Principles, Experimental procedures.
18	SHEIKH ANWARUNANISA	Co-precipitation as a precursor to solid state reactions, kinetics of solid state reaction.
19	THERE JAYRATAN V.	Introduction of nuclear chemistry, radioactive decay and equilibrium.
20	WAGHMARE ANJU R.	Thermonuclear reactions, Photonuclear reactions.
21	WARPATKAR PALLAVI S.	Radiometric titration, isotopic dilution analysis, NAA.
22	ZADE PRAJAKTA MAROTI	Nuclear models: Fermi gas models, shell models.
23	GURNULE KUNAL	Liquid drop models, application of liquid drop models, Semiempirical mass equation.
24	WANDERE ABHISHEK	Counters: Proportional counter, GM counter.

Miss.Amrinnisa.I.Shekh
Subject In-Charge

Prof.S.V. Madhamshettiwar
Head, Department of Chemistry

Sardar Patel Mahavidyalaya, Chandrapur

Post Graduate Department of Chemistry

**Subject: Analytical Chemistry, Internal Assignment Distribution for M. Sc. 1– Sem.II
2018-19**

Sr. No.	Name of Student	Analytical Chemistry Internal Assignment Topic
1.	BAIRAGEE PRIYANKA M.	Derivation of equation of polarographic wave and half wave potential.
2.	BANWADE SHILPA L.	Principle including concept of theoretical plates and van-Deemeter equation.
3.	GANVIR MAYUR D.	Limitation of flame photometry, interference in flame photometry. application
4.	GATHE KOMAL C.	Factors affecting flame photometric determination
5.	GEDAM PORNIMA G.	Instrumental set-up carrier gas, sampling system, column and detector.
6.	GIRI NISHA S.	Principle of DC polarography. Instrumentation in polarography. Advantages and limitation of DME
7.	HEPAT HIMANI D.	Criteria for representative sample. Techniques of sampling of gases.
8.	JOSHI PUNAM G.	Safety aspects in handling hazardous chemicals.
9.	KAWASE NEHA S.	Dry and wet ashing, acid digestion, fusion processes and dissolution of organic sample.
10.	MADAVI KOMAL S.	Concept and difference between sensitivity, limit of detection and limit of quantification.
11.	MAHAJAN NAYANATAI A.	Principle, instrumentation, advantages and application of HPLC
12.	MHAISWAL RENUKA S.	Principle and application of size exclusion gel permeation, ion retardation, normal phase and reverse phase chromatography.
13.	NEWARE PALLAVI M.	Ilkovic equation-diffusion current constant and capillary characteristics.
14.	PASWAN JYOTI S.	Liquids(water and milk sample), solids (soil and coal sample) and particulates, hazards in sampling
15.	PATLE PRADIP N.	Role of noise in determination of detection limit of analytical techniques
16.	PRASAD MEGHA M.	Supercritical fluid chromatography; introduction and application.
17.	SATPUTE KAMLAKAR B.	Nephelometry and turbidimetry theory, instrumentation and application.
18.	SHEIKH ANWARUNANISA I.	Types of column and detector.(liquid chromatography)
19.	THERE JAYRATAN V.	Principle of fluorescence and phosphorescence. Jablonski diagram ,concentration dependence of fluorescence intensity. Fluorescence quenching.
20.	WAGHMARE ANJU R.	Types of columns, their advantages and limitation
21.	WARPATKAR PALLAVI S.	Units in chemical analysis and their interconversion.
22.	ZADE PRAJAKTA M.	Fiber- optic properties, fiber-optic sensors.
23.	GURNULE KUNAL V.	Detector in GC analysis. Temperature programmed GC. Factors affecting retention, peak resolution and peak broadening.
24.	WANDHARE ABHISHEK S.	Types of current.

Miss. P. B.Tikhat
Subject In-Charge

Dr.S.V. Madhamshettiwar
Head, Department of Chemistry