Government of Maharashtra
ISMAIL YUSUF COLLEGE OF ARTS, SCIENCE AND COMMERCE
NAAC 'A' Grade
Jogeshwari (East), Mumbai 400 060

Tel. No. (Office) 022-28352881 **principaliyc@yahoo.co.in** **Fax (Principal) 022-28202188**

Department of Chemistry

M.Sc. Part I

Semester I January 2022

Sr. No	Name of Subject	Date and Time	Name of Examiner
1	Physical Chemistry: Course Code: PSCH 101	08.01.2022 (09:00am to 05:00pm)	Shri. Yatendra Yadav
2	Inorganic Chemistry: Course Code: PSCH 102	10.01.2022 (09:00am to 05:00pm)	Miss. Saira Siddique
3	Organic Chemistry: Course Code: PSCH 103	11.01.2022 (09:00am to 05:00pm)	Miss. Ruqaiya Ansari
4	Analytical Chemistry: Course Code: PSCH 104	12.01.2022 (09:00am to 05:00pm)	Shri Pramod Vishwakarma

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Department of Chemistry

M. Sc. I Sem-I (Internal Presentation Topics) October-2021

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Khan Iqra Azizullaha	Paper-I	Maxwell equations, Maxwell thermodynamic Relations; its significance and applications to ideal gases.
		Paper-II	Preparative methods: Chemical methods, Solvothermal,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: rate and equilibrium constants
		Paper-IV	Laser as a source of radiation, Fibre optics
2.	Khan Khushnuma Abdul Moid	Paper-I	Third law of Thermodynamics, Entropy change for a phase transition, absolute entropies
		Paper-II	Preparative methods:, Solvothermal, Combustion synthesis,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: reaction coordinate diagram, transition state (activated complex),
		Paper-IV	Introduction of Fourier Transform.
3.	Khan Mehjabeen Mohammad	Paper-I	Joule Thomson experiment, Joule Thomson coefficient
		Paper-II	Preparative methods: Microwave, Co-precipitation,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: nature of activated complex, Hammond postulate,
		Paper-IV	Derivation of Beer- Lambert"s Law and its limitations
4.	Khan Tabassum Ejaz	Paper-I	Joule Thomson coefficient in terms of van der Waals constants
		Paper-II	Preparative methods: Langmuir Blodgett (L-B) method,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Reactivity vs selectivity,
		Paper-IV	Factors affecting molecular absorption, types of transitions
5.	Khan Zainab Parvin Noor	Paper-I	Standard molar entropies and their dependence on molecular mass and molecular structure
		Paper-II	Biological methods: Synthesis using microorganisms
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Curtin-Hammett Principle,
		Paper-IV	factors affecting molecular absorption: pH, temperature,
6.	Kumbhar Vaishnavi Shashikant	Paper-I	Classical Mechanics, failure of classical mechanics
		Paper-II	Applications in the field of semiconductors,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Microscopic reversibility,

		Paper-IV	Factors affecting molecular absorption: solvent and effect of substituents.
7.	Mahadeshwar Diksha Dilip	Paper-I	Need for Quantum Mechanics.
		Paper-II	Applications in the field of solar cells
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Kinetic vs thermodynamic control of organic reactions.
		Paper-IV	Dual spectrometry – Introduction, Principle, Instrumentation and Applications
8.	Mansoori Safa Banu Chand Farooq	Paper-I	Particle waves and Schrödinger wave equation
		Paper-II	Characterisation of Coordination compounds: Formation, thermal studies, Conductivity measurement
		Paper-III	Ester hydrolysis: Classification
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: 1) On charge transfer absorption
9.	Mansuri Md Jahangir Nizamuddin	Paper-I	wave functions, properties of wave functions
		Paper-II	Characterisation of Coordination compounds: electronic spectral and magnetic measurements
		Paper-III	Determining mechanism of a reaction: Product analysis,
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Simultaneous spectroscopy
10.	Mishra Nishant Deoprakash	Paper-I	Normalization of wave functions,
		Paper-II	Characterisation of Coordination compounds: IR
		Paper-III	Determining mechanism of a reaction: kinetic studies, use of isotopes (Kinetic isotope effect – primary and secondary kinetic isotope effect).
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Derivative Spectroscopy
11.	Narkar Ankita Sadashiv	Paper-I	Orthogonality of wave functions.
		Paper-II	Characterisation of Coordination compounds: NMR
		Paper-III	Determining mechanism of a reaction: Detection and trapping of intermediates.
		Paper-IV	Oxidation number, rules for assigning oxidation number,
12.	Neman Kunal Eknath	Paper-I	Operators and their algebra
		Paper-II	Preparative methods: Chemical methods
		Paper-III	Characterisation of Coordination compounds: ESR
		Paper-IV	Redox reaction in term of oxidation number, oxidizing and reducing agents,
13.	Pandhare Sudhir Bhanudas	Paper-I	Linear and Hermitian operators
		Paper-II	Microwave synthesis (discussion on principles, examples, merits and demerits are expected)
		Paper-III	Determining mechanism of a reaction: crossover experiments and stereochemical evidence.
		Paper-IV	Equivalent weight of oxidizing and reducing agents, stoichiometry of redox titration

14.	Shaikh Abu Bakar Bakar Husain	Paper-I	Operators for the dynamic variables of a system such as, position, linear momentum, angular momentum
		Paper-II	Methods of preparation for inorganic solids: Ceramic method, precursor method, sol-gel method (applications in Biosensors),
		Paper-III	Determining mechanism of a reaction: stereochemical evidence.
		Paper-IV	Normality of a solution of a oxidizing / reducing agent and its relationship with molarity.
15.	Shaikh Arbaaz Siraj	Paper-I	Operators for the dynamic variables of a system such as, total energy, eigen functions, eigen values and eigen value equation
		Paper-II	Layer structure [cadmium chloride and iodide (CdCl2, CdI2)].
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: Electronegativity
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
16.	Shaikh Misba Sakhavat	Paper-I	Schrödinger wave equation as the eigen value equation of the Hamiltonian operator
		Paper-II	Electronic structure of solids and band theory
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: inductive effect
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
17.	Shaikh Mohammed Ammar Ilyas	Paper-I	Average value and the expectation value of a dynamic variable of the system
		Paper-II	Fermi level, K Space and Brillouin Zones.
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: resonance, bond strength, electrostatic effects,
		Paper-IV	Solubility and solubility equilibria, effect of presence of common ion.
18.	Shaikh Tubba Ansar	Paper-I	Postulates of Quantum Mechanics
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)], AB2 [fluorite (CaF2)
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: hybridization, aromaticity and solvation.
		Paper-IV	Stoichiometry of chemical reactions, concept of kg mol, limiting reactant, theoretical and practical yield.
19.	Haikh Zainabalfiya Imtiaz	Paper-I	Schrodinger"s Time independent wave equation
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)],)
		Paper-III	Comparative study of acidity and basicity of organic compounds on the basis of pKa values.
		Paper-IV	Calculations of ppm, ppb and dilution of the solutions, concept of mmol

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20.	Singh Shrasti Manoj Kumar	**Paper-I**	Schrodinger"s time dependent wave equation.
		Paper-II	Structures of Compounds of the type: AB2 [fluorite (CaF_2)
		Paper-III	Leveling effect and non-aqueous solvents.
		Paper-IV	Nomenclature of all eight mechanisms of acid and base catalyzed hydrolysis.
21.	Vhadade Amar Shripati	**Paper-I**	Application of quantum mechanics to the following systems: a) Free particle, wave function and energy of a free particle.
		Paper-II	Structures of Compounds of the type: AB_2 rutile (TiO2) structure
		Paper-III	Acid and base catalysis – general and specific catalysis with examples.
		Paper-IV	Concentration of a solution based on volume and mass units.

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Department of Chemistry

M. Sc. I Sem-I (Internal Marks) October-2021

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	Khan Iqra Azizullaha	29	26	28	30
2.	Khan Khushnuma Abdul	32	26	31	30
3.	Khan Mehjabeen Mohammad Shafi	30	24	22	31
4.	Khan Tabassum Ejaz	31	25	23	29
5.	Khan Zainab Parvin Noor	33	26	26	30
6.	Kumbhar Vaishnavi Shashikant	32	27	27	31
7.	Mahadeshwar Diksha Dilip	27	26	24	32
8.	Mansoori Safa Banu Chand	32	26	26	30
9.	Ansuri Md Jahangir Nizamuddin	30	26	25	29
10.	Mishra Nishant Deoprakash	35	30	29	32
11.	Narkar Ankita Sadashiv	27	24	27	28
12.	Neman Kunal Eknath	32	23	25	30
13.	Pandhare Sudhir Bhanudas	30	24	23	29
14.	Shaikh Abu Bakar Bakar Husain	31	25	22	30
15.	Shaikh Arbaaz Siraj	27	22	27	30
16.	Shaikh Misba Sakhavat	30	26	28	31
17.	Shaikh Mohammed Ammar Ilyas	31	26	25	31
18.	Shaikh Tubba Ansar	30	25	24	30
19.	Shaikh Zainabalfiya Imtiaz	35	32	27	31
20.	Singh Shrasti Manoj Kumar	30	30	30	32
21.	Vhadade Amar Shripati	26	26	23	30

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Department of Chemistry

M.Sc. Part II

Semester III December 2021

Physical Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP301	Chemistry: Polymer, Surface & Photochemistry	10.12.2021 (09:00am to 12:00pm)	Shri. Yatendra Yadav
2	PSCHP302	Nano chemistry, statistical mechanics &Nuclear chemistry	10.12.2021 (01:00pm to 5:00pm)	Shri. Yatendra Yadav
3	PSCHP303	Atomic and Molecular: Structure and Spectroscopy	11.12.2021 (09:00am to 12:00pm)	Shri. Rajeev Verma
4	PSCHP304	Advanced Instrumental Techniques	11.12.2021 (01:00pm to 5:00pm)	Shri. Pramod Vishwakarma

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Department of Chemistry

M.Sc. Part II

Semester III December 2021

Inorganic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP301	Chemistry of Inorganic Solids	10.12.2021 (09:00am to 12:00pm)	Miss. Ruqaiya Ansari
2	PSCHP402	Bioinorgnic and Coordination Chemistry.	10.12.2021 (01:00pm to 5:00pm)	Miss. Saira Siddique
3	PSCHP403	Spectral Methods in Inorganic Chemistry	11.12.2021 (09:00am to 12:00pm)	Miss. Ruqaiya Ansari
4	PSCHP404	Inorganic Materials	11.12.2021 (01:00pm to 5:00pm)	Miss. Saira Siddique

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Department of Chemistry

M.Sc. Part II Semester III December 2021

Organic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHO301	Theoretical organic chemistry-I	10.12.2021 (09:00am to 12:00pm)	Dr. Dattatraya Bhangare
2	PSCHO302	Synthetic organic chemistry-I	10.12.2021 (01:00pm to 5:00pm)	Shri. Rajeev Verma
3	PSCHO303	Natural products and Spectroscopy	11.12.2021 (09:00am to 12:00pm)	Shri. Rajeev Verma
4	PSCHO304	Medicinal , Biogenesis and green chemistry	11.12.2021 (01:00pm to 5:00pm)	Dr. Dattatraya Bhangare

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M.Sc-II Sem-III Topic For Presentation October-2021

Organic Chemistry

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Harwani Saloni Sunil	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving carbocations.
		Paper-II	Mukaiyama esterification, Mitsonobu reaction
		Paper-III	Introduction to naturally occurring sugars: Deoxysugars.
		Paper-IV	Primary and secondary metabolites and the building blocks
2.	Khan Nikhat Parveen Ahsanullah	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving nitrenes.
		Paper-II	Darzen's Glycidic Ester syntheis, Ritter reaction
		Paper-III	Introduction to naturally occurring sugars: Aminosugars.
		Paper-IV	General pathway of amino acid biosynthesis.
3.	Khan Umar Farooq Khan	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving carbenes.
		Paper-II	Yamaguchi esterification, Peterson olefination
		Paper-III	Acetate pathway: Biosynthesis of malonylCoA
		Paper-IV	Derivation of Beer- Lambert"s Law and its limitations
4.	Sidique Mohamad Ahmad Abdul	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving arynes.
		Paper-II	Domino reactions: Characteristics
		Paper-III	Introduction to naturally occurring sugars: branched sugars.
		Paper-IV	Biosynthesis of saturated fatty acids.
5.	Tiwari Sarvagya Kumar Arvind	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving ketenes.
		Paper-II	Nazerov cyclization
		Paper-III	Structure elucidation of lactose and Dglucosamine
		Paper-IV	Biosynthesis of prostaglandins from arachidonic acid.
6.	Yadav Anish Anil	Paper-I	Neighbouring group participation: Mechanism and effects of anchimeric assistance
		Paper-II	Multicomponent reactions: Strecker Synthesis, Ugi 4CC,
		Paper-III	General structural features, occurrence, biological importance and applications of: carotenoids

		Paper-IV	Shikimic Acid pathway: Biosynthesis of shikimic acid
7.	Yadav Dinesh Suresh	Paper-I	NGP by unshared/ lone pair electrons, π-electrons, aromatic rings
		Paper-II	Multicomponent reactions: Biginelli synthesis, Hantzsch synthesis
		Paper-III	General structural features, occurrence, biological importance and applications of: anthocyanins
		Paper-IV	Shikimic Acid pathway: Biosynthesis of aromatic amino acids, cinnamic acid and its derivatives

Inorganic Chemistry

1	Beig Parvej Khwaja	Paper-I	Structures of **AB** type compounds (PbO and CuO)
		Paper-II	Coordination geometry of the metal ion and functions.
		Paper-III	X-Ray Diffraction: Bragg Condition; Miller Indices
		Paper-IV	Handling of Hazardous Materials
2	Kadam Pratik Prakash	Paper-I	Structures of $\mathbf{AB_2}$ type (βcristobalite, CaC_2 and Cs_2O)
		Paper-II	Coordination geometry of the metal ion and functions.
		Paper-III	Miller Indices; Laue Method
		Paper-IV	Toxic Materials Various types of toxins and their effects on humans
3	Mane Swapnali Yuvraj	Paper-I	Structures of $\mathbf{A_2B_3}$ type (Cr_2O_3 and Bi_2O_3)
		Paper-II	Coordination geometry of the metal ion and functions.
		Paper-III	Zn in biological systems: Carbonic anhydrase.
		Paper-IV	Toxic Materials Various types of toxins and their effects on humans
4	Qureshi Heena Jafar	Paper-I	Structures of B_2 (ReO_3,Li_3N)
		Paper-II	Zn in biological systems:protolytic enzymes.
		Paper-III	Bragg Method; Debye Scherrer Method of X-Ray Structural Analysis of Crystals.
		Paper-IV	Explosives and Inflammable Materials
5	Singh Ashwini Anil	Paper-I	Structures of $\mathbf{ABO_3}$ type, relation between ReO_3 and perovskite $BaTiO_3$ and its polymorphmic forms.
		Paper-II	Zn in biological systems:carboxy peptidase, Zinc finger.
		Paper-III	**Electron Diffraction:** Scattering of electron
		Paper-IV	Explosives and Inflammable Materials
6	Khan Mohd Shaban Abdul	Paper-I	Structures of $\mathbf{ABO_3}$ type, relation between ReO_3 and perovskite $BaTiO_3$ and its Oxide bronzes.
		Paper-II	Role of metal ions in biological electron transfer processes: iron sulphur proteins
		Paper-III	**Electron Diffraction:** Scattering Intensity versus Scattering Angle
		Paper-IV	Types of fire extinguishers(chemical reaction)
7	Manihar Rafiullah S.	Paper-I	Structures of $\mathbf{ABO_3}$ type, relation between ReO_3 and perovskite $BaTiO_3$ and its ilmenite structure

		Paper-II	Role of metal ions in biological electron transfer processes: iron sulphur proteins
		Paper-III	**Electron Diffraction:** Weirl Measurement Technique
		Paper-IV	Bioactive materials

Physical Chemistry

1	Mishra Ekta Jaiprakash	Paper-I	**Introduction**: Polymer Science, fundamental terms
		Paper-II	Variation of optical and magnetic properties of non material lwith size.
		Paper-III	The Born–Oppenheimer approximation.
		Paper-IV	**Thermogravimetry (TG):** Principle and Instrumentation
2	Khan Shehnaz Amirullah	Paper-I	Polymer Science historical outline, classification based on: the origin (natural, semi-synthetic, synthetic etc.)
		Paper-II	Variation of optical and magnetic properties of non material lwith shape
		Paper-III	The Born–Oppenheimer approximation
		Paper-IV	**Thermogravimetry (TG):** factors affecting thermo gravimetric curves
3	Malik Sana A.	Paper-I	Polymer Science: the structure (linear,branched, network, hyper branched, dendrimer, ladder, cross linked, IPN),
		Paper-II	Variation of optical and magnetic properties of non material with surface characteristics
		Paper-III	LCAO method-molecular orbital formation
		Paper-IV	**Thermogravimetry (TG):** Interpretation of thermo gravimetric curves
4	Shukla Nikhil Pawankumar	Paper-I	the type of atom in the main chain(homochain,heterochain)
		Paper-II	Variation of optical and magnetic properties of non material with impurities
		Paper-III	LCAO method-molecular orbital formation
		Paper-IV	**Thermogravimetry (TG):** applications of thermo gravimetry

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M.Sc. Part II- Internal Mark List Sem-III (October-2021

Organic Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	Harwani Saloni Sunil	34	30	32	31
2.	Khan Nikhat Parveen Ahsanullah	32	31	30	31
3.	Khan Umar Farooq Khan	35	32	34	32
4.	Sidique Mohamad Ahmad Abdul	33	33	34	33
5.	Tiwari Sarvagya Kumar Arvind	32	30	29	30
6.	Yadav Anish Anil	33	34	34	31
7.	Yadav Dinesh Suresh	35	36	35	33

Inorganic Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	Beig Parvej Khwaja	27	33	28	25
2	Kadam Pratik Prakash	28	29	29	22
3	Khan Mohd Shaban Abdul Subhan	32	25	32	23
4	Mane Swapnali Yuvraj	26	28	30	22
5	Manihar Rafiullah Shamsullah	16	21	16	21
6	Qureshi Heena Jafar	27	32	34	21
7	Singh Ashwini Anil	32	30	32	24

Physical Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	Malik Sana Azimurrehman	34	31	29	34
2	Shukla Nikhil Pawankumar	27	28	27	31
3	Khan Shehnaz Amirullah	25	30	27	33
4	Mishra Ekta Jaiprakash	35	36	33	34

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Department of Chemistry

M.Sc. Part I

Semester II April 2022

Sr. No	Name of Subject	Date and Time	Name of Examiner
1	Physical Chemistry: Course Code: PSCH 201	07/04/2022 9:00am to 2:00pm	Shri. Yatendra Yadav
2	Inorganic Chemistry: Course Code: PSCH 202	08/04/2022 9:00am to 2:00pm	Miss. Saira Siddique and Ruqaiya Ansari
3	Organic Chemistry: Course Code: PSCH 203	11/04/2022 9:00am to 2:00pm	Dr. Dattatraya Bhangare
4	Analytical Chemistry: Course Code: PSCH 204	12/04/2022 9:00am to 2:00pm	Shri Pramod Vishwakarma

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Department of Chemistry

M. Sc. I Sem-II (Internal Presentation Topics) June-2022

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Khan Iqra Azizullaha	Paper-I	Maxwell equations, Maxwell thermodynamic Relations; its significance and applications to ideal gases.
		Paper-II	Preparative methods: Chemical methods, Solvothermal,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: rate and equilibrium constants
		Paper-IV	Laser as a source of radiation, Fibre optics
2.	Khan Khushnuma Abdul Moid	Paper-I	Third law of Thermodynamics, Entropy change for a phase transition, absolute entropies
		Paper-II	Preparative methods:, Solvothermal, Combustion synthesis,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: reaction coordinate diagram, transition state (activated complex),
		Paper-IV	Introduction of Fourier Transform.
3.	Khan Mehjabeen Mohammad	Paper-I	Joule Thomson experiment, Joule Thomson coefficient
		Paper-II	Preparative methods: Microwave, Co-precipitation,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: nature of activated complex, Hammond postulate,
		Paper-IV	Derivation of Beer- Lambert"s Law and its limitations
4.	Khan Tabassum Ejaz	Paper-I	Joule Thomson coefficient in terms of van der Waals constants
		Paper-II	Preparative methods: Langmuir Blodgett (L-B) method,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Reactivity vs selectivity,
		Paper-IV	Factors affecting molecular absorption, types of transitions
5.	Khan Zainab Parvin Noor	Paper-I	Standard molar entropies and their dependence on molecular mass and molecular structure
		Paper-II	Biological methods: Synthesis using microorganisms
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Curtin-Hammett Principle,
		Paper-IV	factors affecting molecular absorption: pH, temperature,
6.	Kumbhar Vaishnavi Shashikant	Paper-I	Classical Mechanics, failure of classical mechanics
		Paper-II	Applications in the field of semiconductors,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Microscopic reversibility,
		Paper-IV	Factors affecting molecular absorption: solvent and effect of substituents.
7.	Mahadeshwar Diksha Dilip	Paper-I	Need for Quantum Mechanics.
		Paper-II	Applications in the field of solar cells
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Kinetic vs thermodynamic control of organic reactions.
		Paper-IV	Dual spectrometry – Introduction, Principle, Instrumentation and Applications
8.	Mansoori Safa	Paper-I	Particle waves and Schrödinger wave equation

	Banu Chand Farooq	Paper-II	Characterisation of Coordination compounds: Formation, thermal studies, Conductivity measurement
		Paper-III	Ester hydrolysis: Classification
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: 1) On charge transfer absorption
9.	Mansuri Md Jahangir Nizamuddin	Paper-I	wave functions, properties of wave functions
		Paper-II	Characterisation of Coordination compounds: electronic spectral and magnetic measurements
		Paper-III	Determining mechanism of a reaction: Product analysis,
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Simultaneous spectroscopy
10.	Mishra Nishant Deoprakash	Paper-I	Normalization of wave functions,
		Paper-II	Characterisation of Coordination compounds: IR
		Paper-III	Determining mechanism of a reaction: kinetic studies, use of isotopes (Kinetic isotope effect – primary and secondary kinetic isotope effect).
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Derivative Spectroscopy
11.	Narkar Ankita Sadashiv	Paper-I	Orthogonality of wave functions.
		Paper-II	Characterisation of Coordination compounds: NMR
		Paper-III	Determining mechanism of a reaction: Detection and trapping of intermediates,
		Paper-IV	Oxidation number, rules for assigning oxidation number,
12.	Neman Kunal Eknath	Paper-I	Operators and their algebra
		Paper-II	Preparative methods: Chemical methods
		Paper-III	Characterisation of Coordination compounds: ESR
		Paper-IV	Redox reaction in term of oxidation number, oxidizing and reducing agents,
13.	Pandhare Sudhir Bhanudas	Paper-I	Linear and Hermitian operators
		Paper-II	Microwave synthesis (discussion on principles, examples, merits and demerits are expected)
		Paper-III	Determining mechanism of a reaction: crossover experiments and stereochemical evidence.
		Paper-IV	Equivalent weight of oxidizing and reducing agents, stoichiometry of redox titration
14.	Shaikh Abu Bakar Bakar Husain	Paper-I	Operators for the dynamic variables of a system such as, position, linear momentum, angular momentum
		Paper-II	Methods of preparation for inorganic solids: Ceramic method, precursor method, sol-gel method (applications in Biosensors).
		Paper-III	Determining mechanism of a reaction: stereochemical evidence.
		Paper-IV	Normality of a solution of a oxidizing / reducing agent and its relationship with molarity.
15.	Shaikh Arbaaz Siraj	Paper-I	Operators for the dynamic variables of a system such as, total energy, eigen functions, eigen values and eigen value equation
		Paper-II	Layer structure [cadmium chloride and iodide ($CdCl_2$, CdI_2)].
		Paper-III	Acids and Bases: Factors affecting acidity and basicity:

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			Electronegativity
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
16.	Shaikh Misba Sakhavat	Paper-I	Schrödinger wave equation as the eigen value equation of the Hamiltonian operator
		Paper-II	Electronic structure of solids and band theory
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: inductive effect
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
17.	Shaikh Mohammed Ammar Ilyas	Paper-I	Average value and the expectation value of a dynamic variable of the system
		Paper-II	Fermi level, K Space and Brillouin Zones.
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: resonance, bond strength, electrostatic effects,
		Paper-IV	Solubility and solubility equilibria, effect of presence of common ion.
18.	Shaikh Tubba Ansar	Paper-I	Postulates of Quantum Mechanics
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)], AB2 [fluorite (CaF2)
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: hybridization, aromaticity and solvation.
		Paper-IV	Stoichiometry of chemical reactions, concept of kg mol, limiting reactant, theoretical and practical yield.
19.	Haikh Zainabalfiya Imtiaz	Paper-I	Schrodinger"s Time independent wave equation
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)],)
		Paper-III	Comparative study of acidity and basicity of organic compounds on the basis of pKa values.
		Paper-IV	Calculations of ppm, ppb and dilution of the solutions, concept of mmol
20.	Singh Shrasti Manoj Kumar	Paper-I	Schrodinger"s time dependent wave equation.
		Paper-II	Structures of Compounds of the type: AB2 [fluorite (CaF2)
		Paper-III	Leveling effect and non-aqueous solvents.
		Paper-IV	Nomenclature of all eight mechanisms of acid and base catalyzed hydrolysis.
21.	Vhadade Amar Shripati	Paper-I	Application of quantum mechanics to the following systems: a) Free particle, wave function and energy of a free particle.
		Paper-II	Structures of Compounds of the type: AB2 rutile (TiO2) structure
		Paper-III	Acid and base catalysis – general and specific catalysis with examples.
		Paper-IV	Concentration of a solution based on volume and mass units.

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Department of Chemistry

M. Sc. I Sem-II (Internal Marks) June-2022

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	Khan Iqru Azizullaha	29	26	28	30
2.	Khan Khushnuma Abdul	32	26	31	30
3.	Khan Mehjabeen Mohammad Shafi	30	24	22	31
4.	Khan Tabassum Ejaz	31	25	23	29
5.	Khan Zainab Parvin Noor	33	26	26	30
6.	Kumbhar Vaishnavi Shashikant	32	27	27	31
7.	Mahadeshwar Diksha Dilip	27	26	24	32
8.	Mansoori Safa Banu Chand	32	26	26	30
9.	Ansuri Md Jahangir Nizamuddin	30	26	25	29
10.	Mishra Nishant Deoprakash	35	30	29	32
11.	Narkar Ankita Sadashiv	27	24	27	28
12.	Neman Kunal Eknath	32	23	25	30
13.	Pandhare Sudhir Bhanudas	30	24	23	29
14.	Shaikh Abu Bakar Bakar Husain	31	25	22	30
15.	Shaikh Arbaaz Siraj	27	22	27	30
16.	Shaikh Misba Sakhavat	30	26	28	31
17.	Shaikh Mohammed Ammar Ilyas	31	26	25	31
18.	Shaikh Tubba Ansar	30	25	24	30
19.	Shaikh Zainabalfiya Imtiaz	35	32	27	31
20.	Singh Shrasti Manoj Kumar	30	30	30	32
21.	Vhadade Amar Shripati	26	26	23	30

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Jogeshwari (East), Mumbai 400 060

Tel. No. (Office) 022-28352881 **principaliyc@yahoo.co.in** **Fax (Principal) 022-28202188**

Department of Chemistry

M.Sc. Part II

Semester IV April 2022

Physical Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP401	Chemistry: Polymer, Green, Biophysical and Applied.	18/04/2022 9:00am to 11:00am	Shri. Yatendra Yadav
2	PSCHP402	Material Science, Network And Irreversible Thermodynamics	18/04/2022 12:00pm to 2:00pm	Shri. Rajeev Verma
3	PSCHP403	Symmetry & Spectroscopy	19/04/2022 9:00am to 11:00am	Miss. Azra Ansari
4	PSCHP404	Research Methodology	19/04/2022 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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Department of Chemistry

M.Sc. Part II

Semester IV April 2022

Inorganic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP401	Properties of Inorganic Solids and Group Theory.	20/04/2022 9:00am to 11:00am	Miss. Saira Siddique
2	PSCHP402	Organometallic and main group Chemistry	20/04/2022 12:00pm to 2:00pm	Miss. Ruqaiya Ansari
3	PSCHP403	Instrumental methods in Inorganic Chemistry	21/04/2022 9:00am to 11:00am	Miss. Priyanka Sonar
4	PSCHP404	Research Methodology	21/04/2022 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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Department of Chemistry

M.Sc. Part II

Semester IV April 2022

Organic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHO401	Theoretical organic chemistry-II	22/04/2022 9:00am to 11:00am	Miss. Pratiksha Borase
2	PSCHO402	Synthetic organic chemistry-II	22/04/2022 12:00pm to 2:00pm	Dr. Kiran Taksande
3	PSCHO403	Natural products and heterocyclic chemistry	23/04/2022 9:00am to 11:00am	Dr. Dattatraya Bhangare
4	PSCHO404	Research Methodology	23/04/2022 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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Ismail Yusuf College Jogeshwari (E), Mumbai

M.Sc. II Sem-IV, Topic For Presentation (Internal Exam)- June-2022

Organic Chemistry

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Harwani Saloni Sunil	Paper-I	Structural effects and reactivity: Linear free energy relationship (LFER) in determination of organic reaction mechanism.
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the hydroxyl.
		Paper-III	**Steroids:** General structure, classification
		Paper-IV	History and evolution of cheminformatics
2.	Khan Nikhat Parveen Ahsanullah	Paper-I	The Hammett equation, substituent constants
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the carbonyl
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of: corticosteroids.
		Paper-IV	Use of Cheminformatics.
3.	Khan Umar Farooq Khan	Paper-I	Theories of substituent effects, interpretation of σ-values
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the amino.
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of: steroidal hormones
		Paper-IV	Prospects of cheminformatics
4.	Sidique Mohamad Ahmad Abdul	Paper-I	Theories of substituent effects, interpretation of σ-values
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the carboxyl functional groups and its applications.
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of: steroidal alkaloids.
		Paper-IV	Molecular modeling and structure elucidation.
5.	Tiwari Sarvagya Kumar Arvind	Paper-I	Uses of Hammett equation, deviations from Hammett equation.
		Paper-II	**Concept of umpolung (Reversal of polarity):** Generation of acyl anion equivalent using 1,3-dithianes, methyl thiomethyl sulfoxides
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of: sterols and bile acids.
		Paper-IV	**Representation of molecules and chemical reactions:** Nomenclature, Different types of notations
6.	Yadav Anish Anil	Paper-I	Neighbouring group participation: Mechanism and effects of anchimeric assistance
		Paper-II	Multicomponent reactions: Strecker Synthesis, Ugi 4CC,
		Paper-III	General structural features, occurrence, biological importance and applications of: carotenoids

		Paper-IV	Shikimic Acid pathway: Biosynthesis of shikimic acid
7.	Yadav Dinesh Suresh	Paper-I	NGP by unshared/ lone pair electrons, π-electrons, aromatic rings
		Paper-II	Multicomponent reactions: Biginelli synthesis, Hantzsch synthesis
		Paper-III	General structural features, occurrence, biological importance and applications of: anthocyanins
		Paper-IV	Shikimic Acid pathway: Biosynthesis of aromatic amino acids, cinnamic acid and its derivatives

Inorganic Chemistry

1	Beig Parvej Khwaja	Paper-I	**Electrical properties of solids:** (i) Conductivity: Solid Electrolytes; Fast Ion
		Paper-II	**Organometallic Chemistry:** (a) Metal-Metal Bonding and Metal Clusters
		Paper-III	**Infrared spectroscopy:** Fundamental modes of vibrations, selection rules
		Paper-IV	Primary, Secondary and Tertiary sources
2	Kadam Pratik Prakash	Paper-I	Conductors; Mechanism of Conductivity; Hopping Conduction.
		Paper-II	**Organometallic Chemistry:** Isolobal Analogy
		Paper-III	**Infrared spectroscopy:** IR absorption bands of metal - donor atom
		Paper-IV	Journal abbreviations, abstracts, current titles, reviews
3	Mane Swapnali Yuvraj	Paper-I	**Other Electrical Properties:** Thomson and Seebeck Effects;
		Paper-II	**Organometallic Chemistry:** Organo Palladium Complexes (preparations, properties and applications.)
		Paper-III	**Infrared spectroscopy:** effect of complexation on the IR spectrum of ligands formations on the IR of ligands like NH_3
		Paper-IV	monographs, dictionaries, textbooks, current contents
4	Qureshi Heena Jafar	Paper-I	Thermocouples and their Applications;
		Paper-II	**Organometallic Chemistry:** Organo Platinum Complexes (preparations, properties and applications)
		Paper-III	**Infrared spectroscopy:** effect of complexation on the IR spectrum of ligands formations on the IR of ligands like CN^-
		Paper-IV	Introduction to Chemical Abstracts and Beilstein, Subject Index other Indices with examples.
5	Singh Ashwini Anil	Paper-I	Hall Effect; Dielectric, Ferroelectric,
		Paper-II	Substance Index, Author Index, Formula Index
		Paper-III	**Infrared spectroscopy:** effect of complexation on the IR spectrum of ligands formations on the IR of ligands like CO

		Paper-IV	Web sources, E-journals, Journal access, TOC alerts
6	Khan Mohd Shaban Abdul	**Paper-I**	Hall Effect;Piezoelectric and Pyrroelectric
		Paper-II	**Organometallic Chemistry:** (a) Metal-Metal Bonding and Metal Clusters
		Paper-III	**Raman spectroscopy:** Raman spectroscopy for diatomic molecules
		Paper-IV	Hot articles, Citation Index, Impact factor, H-index, E-consortium
7	Manihar Raflullah S.	**Paper-I**	Materials and their Inter-relationships
		Paper-II	Catalysis-Homogenous and Heterogenous Catalysis: Comparison.
		Paper-III	Determination of molecular structures like diatomic and triatomic molecules.
		Paper-IV	Bioactive materials

Physical Chemistry

1	Mishra Ekta Jaiprakash	**Paper-I**	**Polymers in solid state** – Transitions (glass transition and crystalline melting temperature)
		Paper-II	**Metals and alloys**: Solidification of metals and alloys-homogeneous and heterogeneous nucleation Growth of crystals
		Paper-III	Recapitulation: point groups, character tables.
		Paper-IV	weighted linear case, analysis of residuals
2	Khan Shehnaz Amirullah	**Paper-I**	**Polymers in solid state** crystalline behaviour, factors affecting crystallinity
		Paper-II	**Metals and alloys**: Variation of optical and magnetic properties of non material lwith shape.
		Paper-III	Recapitulation: character tables
		Paper-IV	fitting of linear equations, simple linear cases
3	Malik Sana A.	**Paper-I**	**Polymers in solid state:** polymer blends and Alloys.
		Paper-II	**Metals and alloys**: growth of silicon single crystal
		Paper-III	Reduction formula, application of reduction formula to vibrational modes of water molecule
		Paper-IV	Correlation and regression, curve fitting
4	Shukla Nikhil Pawankumar	**Paper-I**	**Identification and characterization of polymers**:Chemical analysis- End group analysis
		Paper-II	**Metals and alloys**: growth of silicon single crystal
		Paper-III	Reduction formula, application of reduction formula to vibrational modes of water molecule
		Paper-IV	Chemometrics, Analysis of Variance (ANOVA)

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M.Sc. Part II- Internal Mark List Sem-IV June 2022(internal Marks)

Organic Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	Harwani Saloni Sunil	34	30	32	31
2.	Khan Nikhat Parveen Ahsanullah	32	31	30	31
3.	Khan Umar Farooq Khan	35	32	34	32
4.	Sidique Mohamad Ahmad Abdul	33	33	34	33
5.	Tiwari Sarvagya Kumar Arvind	32	30	29	30
6.	Yadav Anish Anil	33	34	34	31
7.	Yadav Dinesh Suresh	35	36	35	33

Inorganic Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	Beig Parvej Khwaja	27	33	28	25
2	Kadam Pratik Prakash	28	29	29	22
3	Khan Mohd Shaban Abdul Subhan	32	25	32	23
4	Mane Swapnali Yuvraj	26	28	30	22
5	Manihar Rafiullah Shamsullah	16	21	16	21
6	Qureshi Heena Jafar	27	32	34	21
7	Singh Ashwini Anil	32	30	32	24

Physical Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	Malik Sana Azimurrehman	34	31	29	34
2	Shukla Nikhil Pawankumar	27	28	27	31
3	Khan Shehnaz Amirullah	25	30	27	33
4	Mishra Ekta Jaiprakash	35	36	33	34

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Tel. No. (Office) 022-28352881 **principaliyc@yahoo.co.in** **Fax (Principal) 022-28202188**

Department of Chemistry

M.Sc. Part I

Semester I December 2022

Sr. No	Name of Subject	Date and Time	Name of Examiner
1	Physical Chemistry: Course Code: PSCH 101	19.12.2022 (09:00am to 05:00pm)	Shri. Yatendra Yadav
2	Inorganic Chemistry: Course Code: PSCH 102	20.12.2022 (09:00am to 05:00pm)	Miss. Saira Siddique and Ruqaiya Ansari
3	Organic Chemistry: Course Code: PSCH 103	21.12.2022 (09:00am to 05:00pm)	Dr. Dattatraya Bhangare
4	Analytical Chemistry: Course Code: PSCH 104	22.12.2022 (09:00am to 05:00pm)	Shri Pramod Vishwakarma

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Department of Chemistry

M. Sc. I (Internal Presentation Topics) December-2022

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Behera Purnima Laxmidhar	Paper-I	Maxwell equations, Maxwell thermodynamic Relations; its significance and applications to ideal gases.
		Paper-II	Preparative methods: Chemical methods, Solvothermal,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: rate and equilibrium constants
		Paper-IV	Laser as a source of radiation, Fibre optics
2.	Gupta Rohit Kumar P.	Paper-I	Third law of Thermodynamics, Entropy change for a phase transition, absolute entropies
		Paper-II	Preparative methods:, Solvothermal, Combustion synthesis,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: reaction coordinate diagram, transition state (activated complex),
		Paper-IV	Introduction of Fourier Transform.
3.	Gupta Shivangi Rajendra	Paper-I	Joule Thomson experiment, Joule Thomson coefficient
		Paper-II	Preparative methods: Microwave, Co-precipitation,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: nature of activated complex, Hammond postulate,
		Paper-IV	Derivation of Beer- Lambert"s Law and its limitations
4.	Khan Hadiya Khatun Abusad	Paper-I	Joule Thomson coefficient in terms of van der Waals constants
		Paper-II	Preparative methods: Langmuir Blodgett (L-B) method,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Reactivity vs selectivity,
		Paper-IV	Factors affecting molecular absorption, types of transitions
5.	Khan Parveen Amjad Ali	Paper-I	Standard molar entropies and their dependence on molecular mass and molecular structure
		Paper-II	Biological methods: Synthesis using microorganisms
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Curtin-Hammett Principle,
		Paper-IV	factors affecting molecular absorption: pH, temperature,
6.	Khan Shamina Bano Ansar	Paper-I	Classical Mechanics, failure of classical mechanics
		Paper-II	Applications in the field of semiconductors,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Microscopic reversibility,
		Paper-IV	Factors affecting molecular absorption: solvent and effect of substituents.
7.	Memon Aisha Salim	Paper-I	Need for Quantum Mechanics.
		Paper-II	Applications in the field of solar cells
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Kinetic vs thermodynamic control of organic reactions.
		Paper-IV	Dual spectrometry – Introduction, Principle, Instrumentation and Applications
8.	Mishra Ankit	Paper-I	Particle waves and Schrödinger wave equation

	Kumar Anil	Paper-II	Characterisation of Coordination compounds: Formation, thermal studies, Conductivity measurement
		Paper-III	Ester hydrolysis: Classification
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: 1) On charge transfer absorption
9.	Mishra Shishir Santosh	Paper-I	wave functions, properties of wave functions
		Paper-II	Characterisation of Coordination compounds: electronic spectral and magnetic measurements
		Paper-III	Determining mechanism of a reaction: Product analysis,
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Simultaneous spectroscopy
10.	Mishra Utkarsh Narendra	Paper-I	Normalization of wave functions,
		Paper-II	Characterisation of Coordination compounds: IR
		Paper-III	Determining mechanism of a reaction: kinetic studies, use of isotopes (Kinetic isotope effect – primary and secondary kinetic isotope effect).
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Derivative Spectroscopy
11.	Khan Roshan Jahan Kyamuddin	Paper-I	Orthogonality of wave functions.
		Paper-II	Characterisation of Coordination compounds: NMR
		Paper-III	Determining mechanism of a reaction: Detection and trapping of intermediates,
		Paper-IV	Oxidation number, rules for assigning oxidation number,
12.	Shaikh Afrin Mushtaq	Paper-I	Operators and their algebra
		Paper-II	Preparative methods: Chemical methods
		Paper-III	Characterisation of Coordination compounds: ESR
		Paper-IV	Redox reaction in term of oxidation number, oxidizing and reducing agents,
13.	Shaikh Ayesha Riyaz	Paper-I	Linear and Hermitian operators
		Paper-II	Microwave synthesis (discussion on principles, examples, merits and demerits are expected)
		Paper-III	Determining mechanism of a reaction: crossover experiments and stereochemical evidence.
		Paper-IV	Equivalent weight of oxidizing and reducing agents, stoichiometry of redox titration
14.	Shaikh Salim Dilbahar	Paper-I	Operators for the dynamic variables of a system such as, position, linear momentum, angular momentum
		Paper-II	Methods of preparation for inorganic solids: Ceramic method, precursor method, sol-gel method (applications in Biosensors).
		Paper-III	Determining mechanism of a reaction: stereochemical evidence.
		Paper-IV	Normality of a solution of a oxidizing / reducing agent and its relationship with molarity.
15.	Shaikh Mohammad Sufiyan M.	Paper-I	Operators for the dynamic variables of a system such as, total energy, eigen functions, eigen values and eigen value equation
		Paper-II	Layer structure [cadmium chloride and iodide ($CdCl_2$, CdI_2)].

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		Paper-III	Acids and Bases: Factors affecting acidity and basicity: Electronegativity
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
16.	Shingada Chandresh Radaka	Paper-I	Schrödinger wave equation as the eigen value equation of the Hamiltonian operator
		Paper-II	Electronic structure of solids and band theory
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: inductive effect
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
17.	Siddiqui Hajra Dilshad A.	Paper-I	Average value and the expectation value of a dynamic variable of the system
		Paper-II	Fermi level, K Space and Brillouin Zones.
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: resonance, bond strength, electrostatic effects,
		Paper-IV	Solubility and solubility equilibria, effect of presence of common ion.
18.	Singh Vinay Ramesh	Paper-I	Postulates of Quantum Mechanics
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)], AB2 [fluorite (CaF2)
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: hybridization, aromaticity and solvation.
		Paper-IV	Stoichiometry of chemical reactions, concept of kg mol, limiting reactant, theoretical and practical yield.
19.	Tiwari Anjali Rajesh	Paper-I	Schrodinger"s Time independent wave equation
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)],)
		Paper-III	Comparative study of acidity and basicity of organic compounds on the basis of pKa values.
		Paper-IV	Calculations of ppm, ppb and dilution of the solutions, concept of mmol
20.	Yadav Mansi Keshav	Paper-I	Schrodinger"s time dependent wave equation.
		Paper-II	Structures of Compounds of the type: AB2 [fluorite (CaF2)
		Paper-III	Leveling effect and non-aqueous solvents.
		Paper-IV	Nomenclature of all eight mechanisms of acid and base catalyzed hydrolysis.
21.	Yadav Neha Pramod	Paper-I	Application of quantum mechanics to the following systems: a) Free particle, wave function and energy of a free particle.
		Paper-II	Structures of Compounds of the type: AB2 rutile (TiO2) structure
		Paper-III	Acid and base catalysis – general and specific catalysis with examples.
		Paper-IV	Concentration of a solution based on volume and mass units.

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Department of Chemistry

M. Sc. I, Sem-I (Internal Marks) December-2022

Sr. No.	Name Of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	Behera Purnima Laxmidhar	29	24	25	24
2.	Gupta Rohit Kumar P.	26	22	20	24
3.	Gupta Shivangi Rajendra	29	24	30	24
4.	Khan Hadiya Khatun Abusad	31	33	32	25
5.	Khan Parveen Amjad Ali	28	30	28	26
6.	Khan Shamina Bano Ansar	28	26	23	25
7.	Memon Aisha Salim	34	35	36	33
8.	Mishra Ankit Kumar Anil	24	28	26	29
9.	Mishra Shishir Santosh	24	25	25	30
10.	Mishra Utkarsh Narendra	28	24	22	30
11.	Roshan Jahan Kyamuddin	30	30	31	24
12.	Shaikh Afrin Mushtaq	25	29	28	26
13.	Shaikh Ayesha Riyaz	28	30	25	24
14.	Shaikh Salim Dilbahar	27	21	20	30
15.	Shaikh Mohammad Sufiyan M.	29	21	22	28
16.	Shingada Chandresh Radaka	28	22	21	29
17.	Siddiqui Hajra Dilshad A.	24	25	24	24
18.	Singh Vinay Ramesh	30	25	26	27
19.	Tiwari Anjali Rajesh	24	28	26	28
20.	Yadav Mansi Keshav	24	28	26	28
21.	Yadav Neha Pramod	27	25	23	24

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Tel. No. (Office) 022-28352881 **principaliyc@yahoo.co.in** **Fax (Principal) 022-28202188**

Department of Chemistry

M.Sc. Part II

Semester IV April 2022

Organic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHO401	Theoretical organic chemistry-II	22/04/2022 9:00am to 11:00am	Miss. Pratiksha Borase
2	PSCHO402	Synthetic organic chemistry-II	22/04/2022 12:00pm to 2:00pm	Dr. Kiran Taksande
3	PSCHO403	Natural products and heterocyclic chemistry	23/04/2022 9:00am to 11:00am	Dr. Dattatraya Bhangare
4	PSCHO404	Research Methodology	23/04/2022 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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CHEMISTRY

Government of Maharashtra
ISMAIL YUSUF COLLEGE OF ARTS, SCIENCE AND COMMERCE
NAAC 'A' Grade
Jogeshwari (East), Mumbai 400 060

Tel. No. (Office) 022-28352881 **principaliyc@yahoo.co.in** **Fax (Principal) 022-28202188**

Department of Chemistry

M.Sc. Part II

Semester IV April 2022

Inorganic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP401	Properties of Inorganic Solids and Group Theory.	20/04/2022 9:00am to 11:00am	Miss. Saira Siddique
2	PSCHP402	Organometallic and main group Chemistry	20/04/2022 12:00pm to 2:00pm	Miss. Ruqaiya Ansari
3	PSCHP403	Instrumental methods in Inorganic Chemistry	21/04/2022 9:00am to 11:00am	Miss. Priyanka Sonar
4	PSCHP404	Research Methodology	21/04/2022 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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Department of Chemistry

M.Sc. Part II

Semester IV April 2022

Physical Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP401	Chemistry: Polymer, Green, Biophysical and Applied.	18/04/2022 9:00am to 11:00am	Shri. Yatendra Yadav
2	PSCHP402	Material Science, Network And Irreversible Thermodynamics	18/04/2022 12:00pm to 2:00pm	Shri. Rajeev Verma
3	PSCHP403	Symmetry & Spectroscopy	19/04/2022 9:00am to 11:00am	Miss. Azra Ansari
4	PSCHP404	Research Methodology	19/04/2022 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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Department of Chemistry

M.Sc. Part I

Semester II April 2022

Sr. No	Name of Subject	Date and Time	Name of Examiner
1	Physical Chemistry: Course Code: PSCH 201	07/04/2022 9:00am to 2:00pm	Shri. Yatendra Yadav
2	Inorganic Chemistry: Course Code: PSCH 202	08/04/2022 9:00am to 2:00pm	Miss. Saira Siddique and Ruqaiya Ansari
3	Organic Chemistry: Course Code: PSCH 203	11/04/2022 9:00am to 2:00pm	Dr. Dattatraya Bhangare
4	Analytical Chemistry: Course Code: PSCH 204	12/04/2022 9:00am to 2:00pm	Shri Pramod Vishwakarma

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Government of Maharashtra
Ismail Yusuf College Jogeshwari (E), Mumbai

Topic for internal Presentation December-2022

Organic Chemistry

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Khan Iqra Azizullaha	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving carbocations.
		Paper-II	Mukaiyama esterification, Mitsonobu reaction
		Paper-III	Introduction to naturally occurring sugars: Deoxysugars.
		Paper-IV	Primary and secondary metabolites and the building blocks
2.	Khan Khushnuma Abdul	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving nitrenes.
		Paper-II	Darzen's Glycidic Ester syntheis, Ritter reaction
		Paper-III	Introduction to naturally occurring sugars: Aminosugars.
		Paper-IV	General pathway of amino acid biosynthesis.
3.	Mansoori Safa Bahu Chand	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving carbenes.
		Paper-II	Yamaguchi esterification, Peterson olefination
		Paper-III	Acetate pathway: Biosynthesis of malonylCoA
		Paper-IV	Derivation of Beer- Lambert"s Law and its limitations
4.	Khan Zainab Parvin Noor	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving arynes.
		Paper-II	Domino reactions: Characteristics
		Paper-III	Introduction to naturally occurring sugars: branched sugars.
		Paper-IV	Biosynthesis of saturated fatty acids.
5.	Kumbhar Vaishnavi Shashikant	Paper-I	Organic reactive intermediates, methods of generation, structure, stability and important reactions involving ketenes.
		Paper-II	Nazerov cyclization
		Paper-III	Structure elucidation of lactose and Dglucosamine
		Paper-IV	Biosynthesis of prostaglandins from arachidonic acid.
6.	Mishra Nishant Deoprakash	Paper-I	Neighbouring group participation: Mechanism and effects of anchimeric assistance
		Paper-II	Multicomponent reactions: Strecker Synthesis, Ugi 4CC,
		Paper-III	General structural features, occurrence, biological importance and applications of: carotenoids

		Paper-IV	Shikimic Acid pathway: Biosynthesis of shikimic acid
7.	Shaikh Zainabalfiya Imtiaz	Paper-I	NGP by unshared/ lone pair electrons, π-electrons, aromatic rings
		Paper-II	Multicomponent reactions: Biginelli synthesis, Hantzsch synthesis
		Paper-III	General structural features, occurrence, biological importance and applications of: anthocyanins
		Paper-IV	Shikimic Acid pathway: Biosynthesis of aromatic amino acids, cinnamic acid and its derivatives

Inorganic Chemistry

1	Khan Mehjabeen Mohammad Shafi	Paper-I	Structures of **AB** type compounds (PbO and CuO)
		Paper-II	Coordination geometry of the metal ion and functions.
		Paper-III	X-Ray Diffraction: Bragg Condition; Miller Indices
		Paper-IV	Handling of Hazardous Materials
2	Mahadeshwar Diksha Dilip	Paper-I	Structures of AB_2 type (βcristobalite, CaC_2 and Cs_2O)
		Paper-II	Coordination geometry of the metal ion and functions.
		Paper-III	Miller Indices; Laue Method
		Paper-IV	Toxic Materials Various types of toxins and their effects on humans
3	Mansuri Md Jahangir Nizamuddin	Paper-I	Structures of A_2B_3 type (Cr_2O_3 and Bi_2O_3)
		Paper-II	Coordination geometry of the metal ion and functions.
		Paper-III	Zn in biological systems: Carbonic anhydrase.
		Paper-IV	Toxic Materials Various types of toxins and their effects on humans
4	Neman Kunal Eknath	Paper-I	Structures of B_3 (ReO_3,Li_3N)
		Paper-II	Zn in biological systems:protolytic enzymes.
		Paper-III	Bragg Method; Debye Scherrer Method of X-Ray Structural Analysis of Crystals.
		Paper-IV	Explosives and Inflammable Materials
5	Pandhare Sudhir Bhanudas	Paper-I	Structures of ABO_3 type, relation between ReO_3 and perovskite $BaTiO_3$ and its polymorphmic forms.
		Paper-II	Zn in biological systems:carboxy peptidase, Zinc finger.
		Paper-III	**Electron Diffraction:** Scattering of electron
		Paper-IV	Explosives and Inflammable Materials
6	Singh Shrasti Manoj Kumar	Paper-I	Structures of ABO_3 type, relation between ReO_3 and perovskite $BaTiO_3$ and its Oxide bronzes.
		Paper-II	Role of metal ions in biological electron transfer processes: iron sulphur proteins
		Paper-III	**Electron Diffraction:** Scattering Intensity versus Scattering Angle
		Paper-IV	Types of fire extinguishers(chemical reaction)
7	Vhadade Amar Shripatis.	Paper-I	Structures of ABO_3 type, relation between ReO_3 and perovskite $BaTiO_3$ and its ilmenite structure
		Paper-II	Role of metal ions in biological electron transfer processes: iron sulphur proteins

		Paper-III	**Electron Diffraction:** Weirl Measurement Technique
		Paper-IV	Bioactive materials

Physical Chemistry

1	Narkar Ankita Sadashiv	**Paper-I**	**Introduction**: Polymer Science, fundamental terms
		Paper-II	Variation of optical and magnetic properties of non material lwith size.
		Paper-III	The Born–Oppenheimer approximation.
		Paper-IV	**Thermogravimetry (TG):** Principle and Instrumentation
2	Shaikh Abu Bakar Bakar	**Paper-I**	Polymer Science historical outline, classification based on: the origin (natural, semi-synthetic, synthetic etc.)
		Paper-II	Variation of optical and magnetic properties of non material lwith shape
		Paper-III	The Born–Oppenheimer approximation
		Paper-IV	**Thermogravimetry (TG):** factors affecting thermo gravimetric curves
3	Shaikh Arbaaz Siraj Tamanna	**Paper-I**	Polymer Science: the structure (linear,branched, network, hyper branched, dendrimer, ladder, cross linked, IPN),
		Paper-II	Variation of optical and magnetic properties of non material with surface characteristics
		Paper-III	LCAO method-molecular orbital formation
		Paper-IV	**Thermogravimetry (TG):** Interpretation of thermo gravimetric curves
4	Shaikh Misba Sakhavat Bobby	**Paper-I**	The type of atom in the main chain (homochain, heterochain)
		Paper-II	Variation of optical and magnetic properties of non material with impurities
		Paper-III	LCAO method-molecular orbital formation
		Paper-IV	**Thermogravimetry (TG):** applications of thermo gravimetry
5	Shaikh Mohammed Ammar Ilyas	**Paper-I**	The formation(condensation, addition), homo polymers,co polymers (random, alternate, block, graft)
		Paper-II	Relationship between size and shape of nano materials
		Paper-III	Calculation of energy of hydrogen molecule ion using Valence bond method
		Paper-IV	**Differential thermal analysis(DTA)and Differential scanning calorimetry (DSC):** Principle and instrumentation.
6	Shaikh Tubba Ansar	**Paper-I**	the behavior on application of heat (thermoplastic and thermosetting)
		Paper-II	Relationship between size and shape of nano materials.
		Paper-III	Calculation of energy of hydrogen molecule ion using Valence bond method.
		Paper-IV	**Differential thermal analysis(DTA)and Differential scanning calorimetry (DSC):** heat flux and power compensated DSC.
7	Khan Tabassum Ejaz	**Paper-I**	The form and application (plastics, fibre, elastomers and resins)

	Noorjahan	**Paper-II**	Less common ions in biology e.g. Ni (urease; structure and reactivity)
		Paper-III	Calculation of energy of hydrogen molecule ion using Valence bond method.
		Paper-IV	Differential thermal analysis(DTA)and Differential scanning calorimetry (DSC): Interpretation of DTA and DSC curves applications of DTA and DSC

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M.Sc. Part II- Internal Mark List Sem-III December-2022

Organic Chemistry

Sr. No.	Name Of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	Khan Iqra Azizullaha	32	24	28	27
2.	Khan Khushnuma Abdul	30	30	24	32
3.	Mansoori Safa Banu Chand	20	30	27	29
4.	Khan Zainab Parvin Noor	30	33	24	32
5.	Kumbhar Vaishnavi Shashikant	28	31	29	25
6.	Mishra Nishant Deoprakash	26	30	27	29
7.	Shaikh Zainabalfiya Imtiaz	27	31	31	31

Inorganic Chemistry

Sr. No.	Name Of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	Khan Mehjabeen Mohammad S.	29	30	29	24
2	Mahadeshwar Diksha Dilip	30	32	26	25
3	Mansuri Md Jahangir N.	30	32	24	30
4	Neman Kunal Eknath	25	27	24	32
5	Pandhare Sudhir Bhanudas	25	27	24	26
6	Singh Shrasti Manoj Kumar	32	31	30	24
7	Vhadade Amar Shripatis	30	29	31	25

Physical Chemistry

Sr. No.	Name Of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	Khan Tabassum Ejaz N.	32	31	31	26
2	Narkar Ankita Sadashiv	26	28	27	25
3	Shaikh Abu Bakar Bakar	24	30	24	28
4	Shaikh Arbaaz Siraj Tamanna	26	29	28	24
5	Shaikh Misba Sakhavat Bobby	31	27	32	31
6	Shaikh Mohammed Ammar Ilyas	27	26	29	35
7	Shaikh Tubba Ansar	33	29	29	30

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Department of Chemistry

M.Sc. Part I

Semester II April 2023

Sr. No	Name of Subject	Date and Time	Name of Examiner
1	Physical Chemistry: Course Code: PSCH 201	02/04/2023 9:00am to 2:00pm	Shri. Yatendra Yadav
2	Inorganic Chemistry: Course Code: PSCH 202	03/04/2023 9:00am to 2:00pm	Miss. Saira Siddique and Ruqaiya Ansari
3	Organic Chemistry: Course Code: PSCH 203	04/04/2023 9:00am to 2:00pm	Dr. Dattatraya Bhangare
4	Analytical Chemistry: Course Code: PSCH 204	06/04/2023 9:00am to 2:00pm	Shri Pramod Vishwakarma

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Ismail Yusuf College Jogeshwari (E), Mumbai

Department of Chemistry

M. Sc. I Sem-II (Internal Presentation Topics) April-2023

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Behera Purnima Laxmidhar	Paper-I	Maxwell equations, Maxwell thermodynamic Relations; its significance and applications to ideal gases.
		Paper-II	Preparative methods: Chemical methods, Solvothermal,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: rate and equilibrium constants
		Paper-IV	Laser as a source of radiation, Fibre optics
2.	Gupta Rohit Kumar P.	Paper-I	Third law of Thermodynamics, Entropy change for a phase transition, absolute entropies
		Paper-II	Preparative methods:, Solvothermal, Combustion synthesis,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: reaction coordinate diagram, transition state (activated complex),
		Paper-IV	Introduction of Fourier Transform.
3.	Gupta Shivangi Rajendra	Paper-I	Joule Thomson experiment, Joule Thomson coefficient
		Paper-II	Preparative methods: Microwave, Co-precipitation,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: nature of activated complex, Hammond postulate,
		Paper-IV	Derivation of Beer- Lambert"s Law and its limitations
4.	Khan Hadiya Khatun Abusad	Paper-I	Joule Thomson coefficient in terms of van der Waals constants
		Paper-II	Preparative methods: Langmuir Blodgett (L-B) method,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Reactivity vs selectivity,
		Paper-IV	Factors affecting molecular absorption, types of transitions
5.	Khan Parveen Amjad Ali	Paper-I	Standard molar entropies and their dependence on molecular mass and molecular structure
		Paper-II	Biological methods: Synthesis using microorganisms
		Paper-III	Thermodynamic and kinetic

			requirements of a reaction: Curtin-Hammett Principle,
		Paper-IV	factors affecting molecular absorption: pH, temperature,
6.	Khan Shamina Bano Ansar	Paper-I	Classical Mechanics, failure of classical mechanics
		Paper-II	Applications in the field of semiconductors,
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Microscopic reversibility,
		Paper-IV	Factors affecting molecular absorption: solvent and effect of substituents.
7.	Memon Aisha Salim	Paper-I	Need for Quantum Mechanics.
		Paper-II	Applications in the field of solar cells
		Paper-III	Thermodynamic and kinetic requirements of a reaction: Kinetic vs thermodynamic control of organic reactions.
		Paper-IV	Dual spectrometry - Introduction, Principle, Instrumentation and Applications
8.	Mishra Ankit Kumar Anil	Paper-I	Particle waves and Schrödinger wave equation
		Paper-II	Characterisation of Coordination compounds: Formation, thermal studies, Conductivity measurement
		Paper-III	Ester hydrolysis: Classification
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: 1) On charge transfer absorption
9.	Mishra Shishir Santosh	Paper-I	wave functions, properties of wave functions
		Paper-II	Characterisation of Coordination compounds: electronic spectral and magnetic measurements
		Paper-III	Determining mechanism of a reaction: Product analysis,
		Paper-IV	Applications of Ultraviolet and Visible spectroscopy: Simultaneous spectroscopy
10.	Mishra Utkarsh Narendra	Paper-I	Normalization of wave functions,
		Paper-II	Characterisation of Coordination compounds: IR
		Paper-III	Determining mechanism of a reaction: kinetic studies, use of isotopes (Kinetic isotope effect - primary and secondary kinetic isotope effect).
		Paper-IV	Applications of Ultraviolet and

			Visible spectroscopy: Derivative Spectroscopy
11.	Khan Roshan Jahan Kyamuddin	Paper-I	Orthogonality of wave functions.
		Paper-II	Characterisation of Coordination compounds: NMR
		Paper-III	Determining mechanism of a reaction: Detection and trapping of intermediates,
		Paper-IV	Oxidation number, rules for assigning oxidation number,
12.	Shaikh Afrin Mushtaq	Paper-I	Operators and their algebra
		Paper-II	Preparative methods: Chemical methods
		Paper-III	Characterisation of Coordination compounds: ESR
		Paper-IV	Redox reaction in term of oxidation number, oxidizing and reducing agents,
13.	Shaikh Ayesha Riyaz	Paper-I	Linear and Hermitian operators
		Paper-II	Microwave synthesis (discussion on principles, examples, merits and demerits are expected)
		Paper-III	Determining mechanism of a reaction: crossover experiments and stereochemical evidence.
		Paper-IV	Equivalent weight of oxidizing and reducing agents, stoichiometry of redox titration
14.	Shaikh Salim Dilbahar	Paper-I	Operators for the dynamic variables of a system such as, position, linear momentum, angular momentum
		Paper-II	Methods of preparation for inorganic solids: Ceramic method, precursor method, sol-gel method (applications in Biosensors),
		Paper-III	Determining mechanism of a reaction: stereochemical evidence.
		Paper-IV	Normality of a solution of a oxidizing / reducing agent and its relationship with molarity.
15.	Shaikh Mohammad Sufiyan M.	Paper-I	Operators for the dynamic variables of a system such as, total energy, eigen functions, eigen values and eigen value equation
		Paper-II	Layer structure [cadmium chloride and iodide ($CdCl_2$, CdI_2)].
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: Electronegativity
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
16.	Shingada	Paper-I	Schrödinger wave equation as the

	Chandresh Radaka		eigen value equation of the Hamiltonian operator
		Paper-II	Electronic structure of solids and band theory
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: inductive effect
		Paper-IV	Calculations of pH of acids, bases, acidic and basic buffers.
17.	Siddiqui Hajra Dilshad A.	Paper-I	Average value and the expectation value of a dynamic variable of the system
		Paper-II	Fermi level, K Space and Brillouin Zones.
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: resonance, bond strength, electrostatic effects,
		Paper-IV	Solubility and solubility equilibria, effect of presence of common ion.
18.	Singh Vinay Ramesh	Paper-I	Postulates of Quantum Mechanics
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)], AB2 [fluorite (CaF2)
		Paper-III	Acids and Bases: Factors affecting acidity and basicity: hybridization, aromaticity and solvation.
		Paper-IV	Stoichiometry of chemical reactions, concept of kg mol, limiting reactant, theoretical and practical yield.
19.	Tiwari Anjali Rajesh	Paper-I	Schrodinger"s Time independent wave equation
		Paper-II	Structures of Compounds of the type: AB [nickel arsenide (NiAs)],)
		Paper-III	Comparative study of acidity and basicity of organic compounds on the basis of pKa values.
		Paper-IV	Calculations of ppm, ppb and dilution of the solutions, concept of mmol
20.	Yadav Mansi Keshav	Paper-I	Schrodinger"s time dependent wave equation.
		Paper-II	Structures of Compounds of the type: AB2 [fluorite (CaF2)
		Paper-III	Leveling effect and non-aqueous solvents.
		Paper-IV	Nomenclature of all eight mechanisms of acid and base catalyzed hydrolysis.
21.	Yadav Neha Pramod	Paper-I	Application of quantum mechanics to the following systems: a) Free particle, wave function and energy of a free particle.

		Paper-II	Structures of Compounds of the type: AB2 rutile (TiO2) structure
		Paper-III	Acid and base catalysis - general and specific catalysis with examples.
		Paper-IV	Concentration of a solution based on volume and mass units.

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Department of Chemistry

M. Sc. I Sem I (Internal Marks) April-2023

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	KHAN IQRA AZIZULLAHA	29	26	28	30
2.	KHAN KHUSHNUMA ABDUL	32	26	31	30
3.	KHAN MEHJABEEN MOHAMMAD SHAFI	30	24	22	31
4.	KHAN TABASSUM EJAZ	31	25	23	29
5.	KHAN ZAINAB PARVIN NOOR	33	26	26	30
6.	KUMBHAR VAISHNAVI SHASHIKANT	32	27	27	31
7.	MAHADESHWAR DIKSHA DILIP	27	26	24	32
8.	MANSOORI SAFA BANU CHAND	32	26	26	30
9.	ANSURI MD JAHANGIR NIZAMUDDIN	30	26	25	29
10.	MISHRA NISHANT DEOPRAKASH	35	30	29	32
11.	NARKAR ANKITA SADASHIV	27	24	27	28
12.	NEMAN KUNAL EKNATH	32	23	25	30
13.	PANDHARE SUDHIR BHANUDAS	30	24	23	29
14.	SHAIKH ABU BAKAR BAKAR HUSAIN	31	25	22	30
15.	SHAIKH ARBAAZ BIRAJ	27	22	27	30
16.	SHAIKH MISBA SAKHAVAT	30	26	28	31
17.	SHAIKH MOHAMMED AMMAR ILYAS	31	26	25	31
18.	SHAIKH TUBBA ANSAR	30	25	24	30
19.	SHAIKH ZAINABALFIYA IMTIAZ	35	32	27	31
20.	SINGH SHRASTI MANOJ KUMAR	30	30	30	32
21.	VHADADE AMAR SHRIPATI	26	26	23	30

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Semester IV April 2023

Physical Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP401	Chemistry: Polymer, Green, Biophysical and Applied.	22/04/2023 9:00am to 11:00am	Shri. Yatendra Yadav
2	PSCHP402	Material Science, Network And Irreversible Thermodynamics	22/04/2023 12:00pm to 2:00pm	Shri. Rajeev Verma
3	PSCHP403	Symmetry & Spectroscopy	24/04/2023 9:00am to 11:00am	Miss. Azra Ansari
4	PSCHP404	Research Methodology	24/04/2023 12:00pm to 2:00pm	Shri. Akash Maurya

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Semester IV April 2023

Inorganic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHP401	Properties of Inorganic Solids and Group Theory.	25/04/2023 9:00am to 11:00am	Miss. Saira Siddique
2	PSCHP402	Organometallics and main group Chemistry	25/04/2023 12:00pm to 2:00pm	Miss. Ruqaiya Ansari
3	PSCHP403	Instrumental methods in Inorganic Chemistry	26/04/2023 9:00am to 11:00am	Miss. Priyanka Sonar
4	PSCHP404	Research Methodology	26/04/2023 12:00pm to 2:00pm	Shri. Rohan Narkar

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M.Sc. Part II

Semester IV April 2023

Organic Chemistry

Sr. No	Subject Code	Name of Subject	Date and Time	Name of Examiner
1	PSCHO401	Theoretical organic chemistry-II	28/04/2023 9:00am to 11:00am	Miss. Pratiksha Borase
2	PSCHO402	Synthetic organic chemistry-II	28/04/2023 12:00pm to 2:00pm	Dr. Kiran Taksande
3	PSCHO403	Natural products and heterocyclic chemistry	29/04/2023 9:00am to 11:00am	Dr. Dattatraya Bhangare
4	PSCHO404	Research Methodology	29/04/2023 12:00pm to 2:00pm	Shri. Pramod Vishwakarma

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Ismail Yusuf College Jogeshwari (E), Mumbai

Presentation Topics for M.Sc. II Sem-IV Internal April-2023

Organic Chemistry

Sr. No.	Name of Students	Paper No.	Topic For presentation
1.	Harwani Saloni Sunil	Paper-I	Structural effects and reactivity: Linear free energy relationship (LFER) in determination of organic reaction mechanism.
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the hydroxyl.
		Paper-III	**Steroids:** General structure, classification
		Paper-IV	History and evolution of cheminformatics
2.	Khan Nikhat Parveen Ahsanullah	Paper-I	The Hammett equation, substituent constants
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the carbonyl
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of: corticosteroids.
		Paper-IV	Use of Cheminformatics.
3.	Khan Umar Farooq Khan	Paper-I	Theories of substituent effects, interpretation of σ-values
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the amino.
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of: steroidal hormones
		Paper-IV	Prospects of cheminformatics
4.	Sidique Mohamad Ahmad Abdul	Paper-I	Theories of substituent effects, interpretation of σ-values
		Paper-II	**Protecting groups in Organic Synthesis:** Protection and deprotection of the carboxyl functional groups and its applications.
		Paper-III	**Steroids:** Occurrence, biological role, important structural and stereochemical features of:steroidal

			alkaloids.
		Paper-IV	Molecular modeling and structure elucidation.
5.	Tiwari Sarvagya Kumar Arvind	Paper-I	Uses of Hammett equation, deviations from Hammett equation.
		Paper-II	**Concept of umpolung (Reversal of polarity)**: Generation of acyl anion equivalent using 1,3-dithianes, methyl thiomethyl sulfoxides
		Paper-III	**Steroids**: Occurrence, biological role,important structural and stereochemical features of: sterols and bile acids.
		Paper-IV	**Representation of molecules and chemical reactions**: Nomenclature, Different types of notations
6.	Yadav Anish Anil	Paper-I	Neighbouring group participation: Mechanism and effects of anchimeric assistance.
		Paper-II	Multicomponent reactions: Strecker Synthesis, Ugi 4CC
		Paper-III	General structural features, occurrence, biological importance and applications of: carotenoids
		Paper-IV	Shikimic Acid pathway: Biosynthesis of shikimic acid
7.	Yadav Dinesh Suresh	Paper-I	NGP by unshared/ lone pair electrons, n-electrons, aromatic rings
		Paper-II	Multicomponent reactions: Biginelli synthesis, Hantzsch synthesis
		Paper-III	General structural features, occurrence, biological importance and applications of: anthocyanins
		Paper-IV	Shikimic Acid pathway: Biosynthesis of aromatic amino acids, cinnamic acid and its derivatives

Inorganic Chemistry

1	Beig Parvej Khwaja	Paper-I	**Electrical properties of solids:** Conductivity: Solid Electrolytes; Fast Ion
		Paper-II	**Organometallic Chemistry:** Metal-Metal Bonding and Metal Clusters
		Paper-III	**Infrared spectroscopy:** Fundamental modes of vibrations, selection rules
		Paper-IV	Primary, Secondary and Tertiary sources

2	Kadam Pratik Prakash	**Paper-I**	Conductors; Mechanism of Conductivity; Hopping Conduction.
		Paper-II	**Organometallic Chemistry:** Isolobal Analogy
		Paper-III	**Infrared spectroscopy:** IR absorption bands of metal - donor atom
		Paper-IV	Journal abbreviations, abstracts, current titles, reviews
3	Mane Swapnali Yuvraj	**Paper-I**	**Other Electrical Properties:** Thomson and Seebeck Effects;
		Paper-II	**Organometallic Chemistry:** Organo Palladium Complexes (preparations, properties and applications.)
		Paper-III	**Infrared spectroscopy:** effect of complexation on the IR spectrum of ligands formations on the IR of ligands like NH_3
		Paper-IV	monographs, dictionaries, textbooks, current contents
4	Qureshi Heena Jafar	**Paper-I**	Thermocouples and their Applications;
		Paper-II	**Organometallic Chemistry:** Organo Platinum Complexes (preparations, properties and applications)
		Paper-III	**Infrared spectroscopy:** effect of complexation on the IR spectrum of ligands formations on the IR of ligands like CN^-
		Paper-IV	Introduction to Chemical Abstracts and Beilstein, Subject Index other Indices with examples.
5	Singh Ashwini Anil	**Paper-I**	Hall Effect; Dielectric, Ferroelectric,
		Paper-II	Substance Index, Author Index, Formula Index
		Paper-III	**Infrared spectroscopy:** effect of complexation on the IR spectrum of ligands formations on the IR of ligands like CO
		Paper-IV	Web sources, E-journals, Journal access, TOC alerts
6	Khan Mohd Shaban Abdul	**Paper-I**	Hall Effect;Piezoelectric and Pyrroelectric
		Paper-II	**Organometallic Chemistry:** (a) Metal-Metal Bonding and Metal Clusters
		Paper-	**Raman spectroscopy:** Raman

		III	spectroscopy for diatomic molecules
		Paper-IV	Hot articles, Citation Index, Impact factor, H-index, E-consortium
7	Manihar Rafiullah S.	Paper-I	Materials and their Inter-relationships
		Paper-II	Catalysis-Homogenous and Heterogenous Catalysis: Comparison.
		Paper-III	Determination of molecular structures like diatomic and triatomic molecules.
		Paper-IV	Bioactive materials

Physical Chemistry 2022-23

1	Narkar Ankita Sadashiv	Paper-I	**Polymers in solid state** - Transitions (glass transition and crystalline melting temperature)
		Paper-II	**Metals and alloys**: Solidification of metals and alloys-homogeneous and heterogeneous nucleation Growth of crystals
		Paper-III	Recapitulation: point groups, character tables.
		Paper-IV	weighted linear case, analysis of residuals
2	Shaikh Abu Bakar Bakar	Paper-I	**Polymers in solid state** crystalline behaviour, factors affecting crystallinity
		Paper-II	**Metals and alloys**: Variation of optical and magnetic properties of non material lwith shape.
		Paper-III	Recapitulation: character tables
		Paper-IV	fitting of linear equations, simple linear cases
3	Shaikh Arbaaz Siraj Tamanna	Paper-I	**Polymers in solid state**: polymer blends and Alloys.
		Paper-II	**Metals and alloys**: growth of silicon single crystal
		Paper-III	Reduction formula, application of reduction formula to vibrational modes of water molecule
		Paper-IV	Correlation and regression, curve fitting
4	Shaikh Misba Sakhavat Bobby	Paper-I	**Identification and characterization of polymers**:Chemical analysis- End group analysis
		Paper-II	**Metals and alloys**: growth of silicon single crystal
		Paper-III	Reduction formula, application of

			reduction formula to vibrational modes of water molecule
		Paper-IV	Chemometrics, Analysis of Variance (ANOVA)
5	Shaikh Mohammed Ammar Ilyas	Paper-I	Physical analysis by Spectral methods: IR, UV.
		Paper-II	Metallic solid solutions-substitutional and interstitial solid solutions
		Paper-III	Application in vibrational spectroscopy, selection rules for IR spectroscopy for molecules such as H_2O.
		Paper-IV	Descriptive statistics, choosing and using statistical tests
6	Shaikh Tubba Ansar	Paper-I	Physical analysis by Spectral methods:, Ramam, NMR,X-ray Diffraction analysis
		Paper-II	Metallic solid solutions-substitutional and interstitial solid solutions.
		Paper-III	Application in vibrational spectroscopy, selection rules for IR spectroscopy for molecules such as CO_2
		Paper-IV	Scientific methods and design of experiments.
7	Khan Tabassum Ejaz Noorjahan	Paper-I	Physical analysis by Spectral methods: Microscopic methods: SEM, TEM,
		Paper-II	Crystalline imperfections-point.
		Paper-III	Application in vibrational spectroscopy, selection rules for IR spectroscopy for molecules such as HF
		Paper-IV	SI units and their use

HOD,
Head of Department
CHEMISTRY

Government of Maharashtra

Ismail Yusuf College Jogeshwari (E), Mumbai

M.Sc. Part II-(Sem-IV) Internal Mark List April-2023

Organic Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1.	KHAN IQRA AZIZULLAHA	32	24	28	27
2.	KHAN KHUSHNUMA ABDUL	30	30	24	32
3.	MANSOORI SAFA BANU CHAND	20	30	27	29
4.	KHAN ZAINAB PARVIN NOOR	30	33	24	32
5.	KUMBHAR VAISHNAVI SHASHIKANT	28	31	29	25
6.	MISHRA NISHANT DEOPRAKASH	26	30	27	29
7.	SHAIKH ZAINABALFIYA IMTIAZ	27	31	31	31

Inorganic Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	KHAN MEHJABEEN MOHAMMAD	29	30	29	24
2	MAHADESHWAR DIKSHA DILIP	30	32	26	25
3	MANSURI MD JAHANGIR N.	30	32	24	30
4	NEMAN KUNAL EKNATH	25	27	24	32
5	PANDHARE SUDHIR BHANUDAS	25	27	24	26
6	SINGH SHRASTI MANOJ	32	31	30	24
7	VHADADE AMAR SHRIPATIS	30	29	31	25

Physical Chemistry

Sr. No.	Name of Students	Paper-I	Paper-II	Paper-III	Paper-IV
1	KHAN TABASSUM EJAZ N.	32	31	31	26
2	NARKAR ANKITA SADASHIV	26	28	27	25
3	SHAIKH ABU BAKAR BAKAR	24	30	24	28
4	SHAIKH ARBAAZ SIRAJ T.	26	29	28	24
5	SHAIKH MISBA SAKHAVAT B.	31	27	32	31
6	SHAIKH MOHAMMED AMMAR I.	27	26	29	35
7	SHAIKH TUBBA ANSAR	33	29	29	30

HOD

Department of Chemistry

Head of Department

CHEMISTRY