

**Arts, Science and Commerce College, Indapur, Dist. Pune**  
**TEACHING AND EVALUATION PLAN**

Name of the teacher: Prof. Deokate Kavita bhagwan

Year: 2021-2022

Semester: VI

Subject: Inorganic Chemistry

Paper: CH-604 Inorganic chemistry II

Class: TYBSc

**Part I : Teaching Plan**

**Part II : Evaluation of Plan**

1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Dec 2021	3 & 4	12	6	Organometallic chemistry	8	Organometallic chemistry	2	Extra lecture was conducted
2	January 2022	1 & 2	12	6	Homogeneous and heterogeneous catalysis	4	Homogeneous and heterogeneous catalysis	Nil	--
3	January 2022	3 & 4	11	6	Homogeneous and heterogeneous catalysis, Bioinorganic chemistry	4	Homogeneous and heterogeneous catalysis, Bioinorganic chemistry	Nil	--
4	Feb 2022	1 & 2	11	6	Bioinorganic chemistry and Inorganic polymers	4	Bioinorganic chemistry and Inorganic polymers	Nil	--
5	Mar 2022	1 & 2	12	6	Inorganic solids or ionic liquid of technological importance	4	Inorganic solids or ionic liquid of technological importance	Nil	--

*Deokate*

*Deokate*

Head  
Department Of Chemistry  
Arts, Science & Commerce  
College, Indapur, Dist. Pune

*Deokate*  
Science Faculty  
Arts, Science & Commerce  
College, Indapur, Dist. Pune

*Deokate*  
PRINCIPAL  
Arts, Science and Commerce



**Arts, Science and Commerce College, Indapur, Dist. Pune**  
**TEACHING AND EVALUATION PLAN**

Name of the teacher: Prof. Deokate Kavita bhagwan

Year: 2021-2022

Semester: II

Subject: Inorganic Chemistry

Paper: CIII-230 section II Bioinorganic chemistry

Class: M.Sc I Year

**Part I : Teaching Plan**

**Part II : Evaluation of Plan**

1 Sr. No.	2 Month	3 Week	4 No. of working days	5 No. of periods available	6 Topics to be taught	7 No. of periods engaged	8 Topics taught	9 Deviation in periods	10 Remarks
1	Dec 2021	3 & 4	12	4	Overview of Bioinorganic chemistry	4	Overview of Bioinorganic chemistry	Nil	--
2	January 2022	1 & 2	12	4	Concept of inorganic chemistry in bioinorganic chemistry	4	Concept of inorganic chemistry in bioinorganic chemistry	Nil	--
3	January 2022	3 & 4	11	4	Concept of inorganic chemistry in bioinorganic chemistry	4	Concept of inorganic chemistry in bioinorganic chemistry	Nil	--
4	Feb 2022	1 & 2	11	4	Function and transport of alkali and alkaline earth metal ion	4	Concept of inorganic chemistry in bioinorganic chemistry	Nil	--
5	Mar 2022	1 & 2	12	4	Biochemistry of calcium, magnesium, manganese, and iron	6	Biochemistry of calcium, magnesium, manganese, and iron	2	Extra lecture was conducted

Signature of Teacher

Signature of Head of Department

Head  
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College, Indapur, Dist. Pune

Signature of Faculty In-charge

Incharge  
Science Faculty  
Arts, Science & Commerce  
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INDAPUR-411006 DIST-PUNE



**TEACHING AND EVALUATION PLAN**

Name of the teacher: Prof. Deokate Kavita bhagwan

Year: 2021-2022

Semester: I

Subject: Inorganic Chemistry

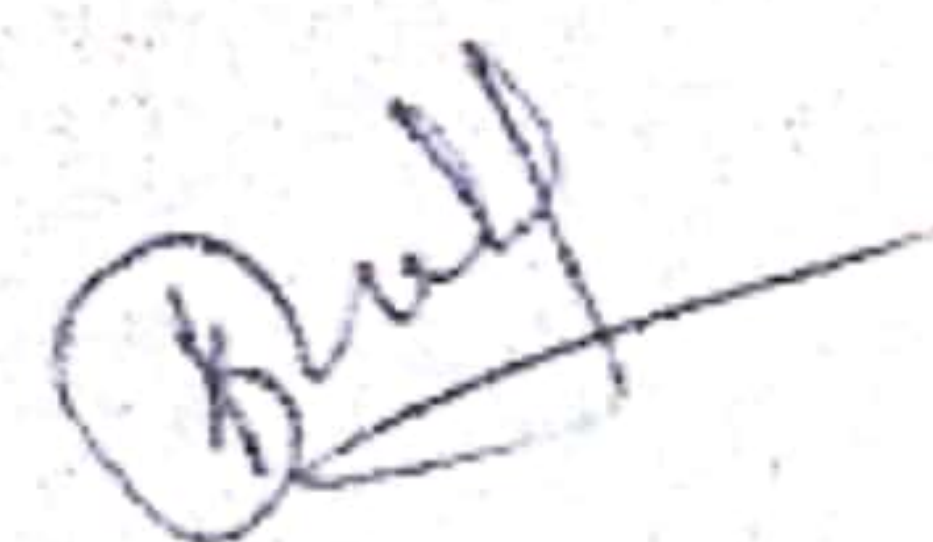
Paper: CHI-130 section II main group elements

Class: M.Sc I Year


**Part I : Teaching Plan**

**Part II : Evaluation of Plan**

2	3	4	5	6	7	8	9	10
Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
July 2021	3 & 4		4	Hydrogen and its compound, Alkali and alkaline earth metal	4	Hydrogen and its compound, Alkali and alkaline earth metal	Nil	
August 2021	1 & 2 3 and 4		8	Boron group, Carbon group, oxygen group	8	Boron group, Carbon group, oxygen group	Nil	
Sept 2021	1 & 2 and 3&4		8	Halogen group, Noble gases and organometallic compound	10	Halogen group, Noble gases and organometallic compound	2	Extra lecture was conducted

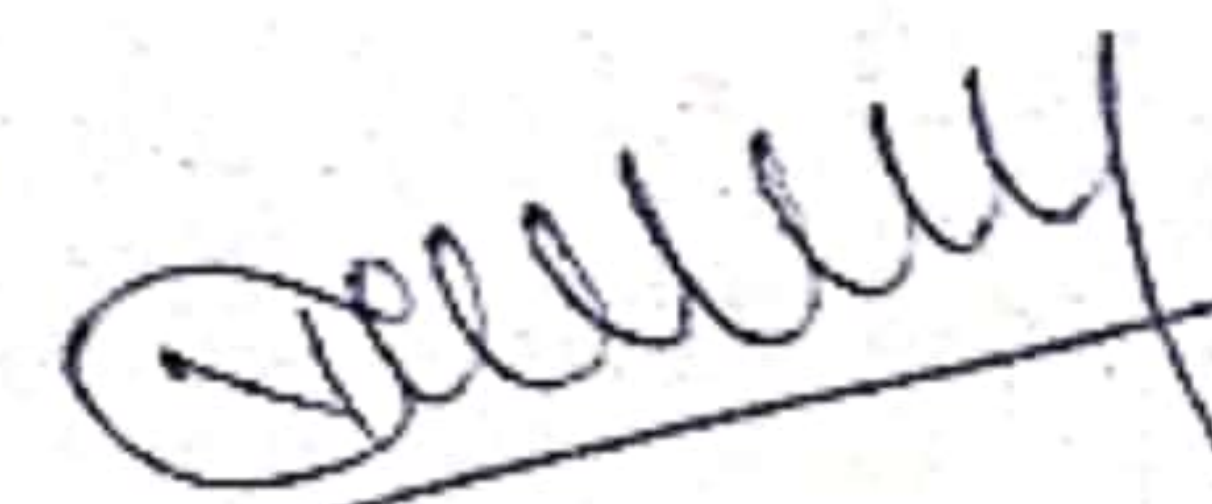


Signature of Teacher



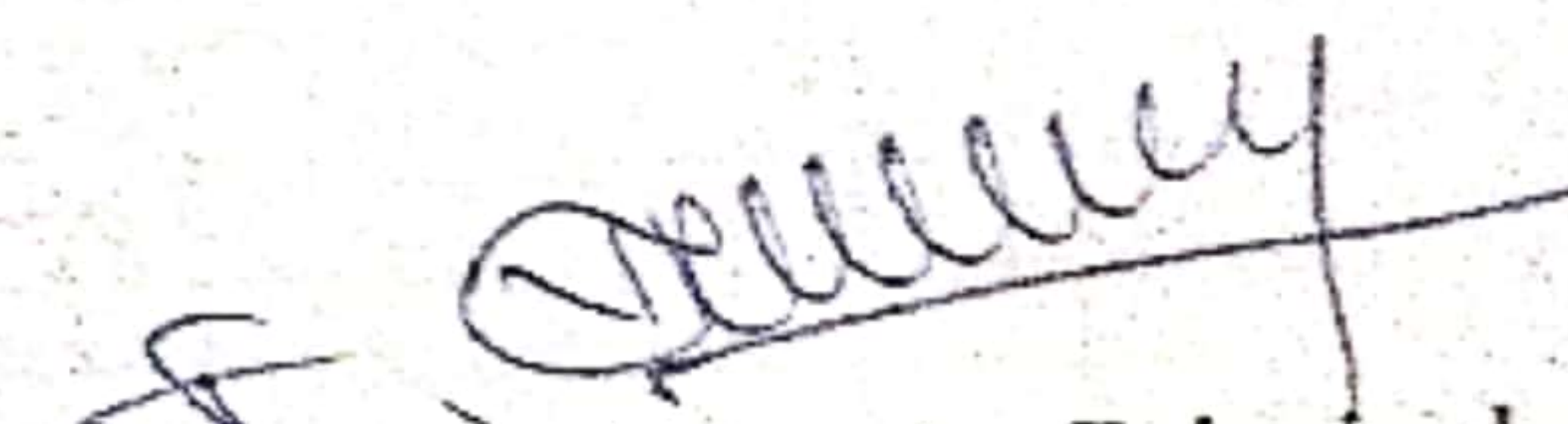
Signature of Head of Department

Head  
Department Of Chemistry  
Arts, Science & Commerce  
College, Indapur, Dist. Pune



Signature of Faculty In-charge

Incharge  
Science Faculty  
Arts, Science & Commerce  
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**Arts, Science and Commerce College, Indapur, Dist. Pune**  
**TEACHING AND EVALUATION PLAN**

Name of the teacher: Prof Gound K.B	Year: 2021-2022
Semester: III	
Subject: Analytical Chemistry	CHA-393 Class: M.Sc II

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Dec 2021	1&2	11	8	1) Analysis of Blood and urine (12L) Introduction & a) Collection of Specimen b) Analysis of blood and urine	8	1) Analysis of Blood and urine (12L) Introduction & a) Collection of Specimen b) Analysis of blood and urine	Nil	--
2	Dec 2021	3&4	11	6	C) vitamin in body fluids 2) Immunological method of Analysis introduction a) Basic of immunology	6	C) vitamin in body fluids 2) Immunological method of Analysis introduction a) Basic of immunology	Nil	--
3	January 2022	1&2	11	6	b) Stages of ELISA c) Practical Exercises for Direct ELISA	6	b) Stages of ELISA c) Practical Exercises for Direct ELISA	Nil	--

4	January 2021	3&4	11	4	Solve the problem 3)Radioimmunoassay -Principle and Reagents	4	Solve the problem 3)Radioimmunoassay -Principle and Reagents	Nil	--
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Semester IV

CHA- 491&amp;CHA-492

Year : 2021-2022.

Part I : Teaching Plan						Part II : Evaluation of Plan			
1 Sr. No.	2 Month	3 Week	4 No. of working days	5 No. of periods available	6 Topics to be taught	7 No. of periods engaged	8 Topics taught	9 Deviation in periods	10 Remarks
1	March 2022	1&2	11	10	1) Pharmaceutical Dosage Form(4L) Introduction and theory of capsule,tablets,cream,drop. 2) Chemical Test,Limit test of Assay (6L) a)limit Test b)Assay	10	1)Pharmaceutical Dosage Form(4L) Introduction and theory of capsule,tablets,cream,drop. 2) Chemical Test,Limit test of Assay (6L) a)limit Test b)Assay	Nil	--
2	March 2022	3&4	11	10	1) Analysis of Soil(10L) a) Sampling of soil b) Weighing and dispensing c) Extraction Procedure d) Analysis of soil	10	1) Analysis of Soil(10L) a) Sampling of soil b) Weighing and dispensing c) Extraction Procedure d) Analysis of soil	Nil	--
3	April 2022.	1 & 2	12	11	3)Microbiological Assay Of Pharmaceutical(8L) 2) Fertilizer Analysis (3L)	11	3)Microbiological Assay Of Pharmaceutical(8L) 2) Fertilizer Analysis (3L)	Nil	--


4	April 2022	3 & 4	12	11	3) Analysis of pesticides and Residue(8L) 2) Fertilizer Analysis (3L)	11	3) Analysis of pesticides and Residue(8L) 2) Fertilizer Analysis (3L)	Nil	--
5	May 2022	1&2	10	6	4) Pharmaceutical Method and Determination (6L) Disintegration Test and Dissolution Test	6	4) Pharmaceutical Method and Determination (6L) Disintegration Test and Dissolution Test	Nil	--


1 The plan should be prepared in duplicate.

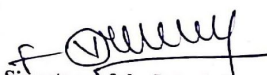
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3 The second copy must be retained by the teacher and submitted at the end of the term. Part second of the plan i. e. columns 7 to 10 must be filled up progressively at the end of every week.

  
Signature of Teacher

  
Signature of Head of Department  
Head  
Department Of Chem  
Arts, Science & Commerce  
College, Indapur, Dist. Pune

  
Signature of Faculty In-charge  
Incharge  
Science Faculty  
Arts, Science & Commerce  
College, Indapur, Dist. Pune

  
Signature of the Principal

Name of the teacher: Prof. Mane Pranjali Suryakant	Year: 2021-2022	Semester: III
Subject: Organic Chemistry	Paper: CHO-351 (Spectroscopic methods in organic Synthesis)	Class: M.Sc II Year

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	July 2021	3 & 4		4	Mass Spectroscopy: Principle, Ionization methods like EI, CI, ES, MALDI and FAB fragmentation of typical Organic compounds,	4	Mass Spectroscopy: Principle, Ionization methods like EI, CI, ES, MALDI and FAB fragmentation of typical Organic compounds	Nil	
2	August 2021	1 & 2 and 3 and 4		8	Application of Mass Spectrometry: determination of the internal composition,	8	Application of Mass Spectrometry: determination of the internal composition,	Nil	
3	Sept 2021	1 & 2 and 3 & 4		8	Problems solving: Structure elucidation using UV, IR, ID(1H and 13C) NMR and 2D NMR (1H-1H, 13C-1H COSY/HETCOR Only), APT, DEPT and MS data as well as spectra.	9	Problems solving: Structure elucidation using UV, IR, ID(1H and 13C) NMR and 2D NMR (1H-1H, 13C-1H COSY/HETCOR Only), APT, DEPT and MS data as well as spectra.	1	Extra lecture done on sunday

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*Pradwade*

Head  
Department Of Chemistry  
Arts, Science & Commerce  
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Incharge  
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## Semester III

## Paper: CHO-353 Protection-De-protection, Chiron approach and Carbohydrates (Sec-II)

Year :2021-2022

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	July 2021	2 & 4	12	4	Basics of Carbohydrates: Introduction of sugar, structure of monosaccharides	4	Basics of Carbohydrates: Introduction of sugar, structure of monosaccharides	Nil	
2	August 2021	1 & 2 3 & 4	11	8	Synthesis of Glycosides: glycosyldonar acceptor concept, general methods for glycosyl bond formation.	8	Synthesis of Glycosides: glycosyldonar acceptor concept, general methods for glycosyl bond formation.	Nil	
3	Sept 2021	1 & 2 3 & 4	12	8	Synthesis of disaccharides.	8	Synthesis of disaccharides.	Nil	

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Head

Department Of Chemistry  
Arts, Science & Commerce  
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Incharge

Science Faculty  
Arts, Science & Commerce  
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Signature of Teacher

Signature of Head of Department

Signature of Faculty In-charge

Signature of the Principal

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TEACHING AND EVALUATION PLAN

Name of the teacher: Prof. Mane Pranjali Suryakant					Year: 2021-2022					Semester: IV				
Subject: Organic Chemistry					Paper: CHO-451( Organometallic Reagent in Organic Synthesis)					Class: M.Sc II Year				
Part I : Teaching Plan										Part II : Evaluation of Plan				
1	2	3	4	5	6	7	8	9	10					
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks					
1	Dec 2021	3 &4	12	8	Transition metal complexes in organic synthesis: Ligand and % mole concepts.	8	Transition metal complexes in organic synthesis: Ligand and % mole concepts.	Nil	--					
2	January 2022	1& 2	12	8	C-C, C-N, C-O bond formation reactions with catalytic cycle.	8	C-C, C-N, C-O bond formation reactions with catalytic cycle.	Nil	--					
3	January 2022	3 & 4	11	7	C=C bond formation reactions: Shapiro, Bamford-Stevens, McMurry, Julia-Lythgoe, Wittig.	8	C=C bond formation reactions: Shapiro, Bamford-Stevens, McMurry, Julia-Lythgoe, Wittig.	1	Extra lecture done on sunday					
4	Feb 2022	1 &2	11	8	Multi component reactions, Ring formation reactions, Click chemistry.	8	Multi component reactions, Ring formation reactions, Click chemistry.	Nil	--					

*Mane Pranjali*

Head  
Department Of Chemistry  
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Arts, Science and Commerce College, Indapur, Dist. Pune

TEACHING AND EVALUATION PLAN

Name of the Teacher : Mr. Nanaware R. M.

Year: 2021-22

Semester: I

Subject: Inorganic Chemistry

Paper: CHI - 130 (Section I Molecular Symmetry)

Class: M.Sc.(I)

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	Sept.	1&2	9	4	1. Molecular symmetry and symmetry operations	4	1. Molecular symmetry and symmetry operations	Nil	
		3,4 & 5	16	5	Symmetry point groups and its classification	5	Symmetry point groups and its classification	Nil	
2	Oct.	1&2	7	4	Representation of groups	4	Representation of groups	Nil	
		3,4&5	16	6	Orthogonally theorem and Character tables	6	Orthogonally theorem and Character tables	Nil	
3	Nov.	1&2	10	4	Symmetry adopted linear combinations	4	Symmetry adopted linear combinations	Nil	
		3&4	11	4	Applications of group theory to infra-red spectroscopy	4	Applications of group theory to infra-red spectroscopy	Nil	

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*[Signature]*

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Arts, Science & Commerce  
College, Indapur, Dist. Pune

**Incharge**  
Science Faculty  
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Arts, Science and Commerce College, Indapur, Dist. Pune

TEACHING AND EVALUATION PLAN

Name of the Teacher : Mr. Nanaware R. M.	Year: 2021-22	Semester: II
Subject: Inorganic Chemistry	Paper: CHI – 230 (Section I Coordination Chemistry)	
Class: M.Sc.(I)		

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
1	march.	1&2	9	4	Concept and scope of ligand field theory	4	Concept and scope of ligand field theory	Nil	
		3,4 & 5	16	5	Ligand field theory of coordination compounds	5	Ligand field theory of coordination compounds	Nil	
2	April.	1&2	7	4	Orgel diagrams, correlation diagrams, Tanabe- Sugano diagrams	4	Orgel diagrams, correlation diagrams, Tanabe- Sugano diagrams	Nil	
		3,4&5	16	6	Electronic spectra of transition metal complexes	6	Electronic spectra of transition metal complexes	Nil	
3	May	1&2	10	4	Nephelauxetic effect and calculations based on it.	4	Nephelauxetic effect and calculations based on it.	Nil	
		3&4	11	4	Magnetic properties of coordination compounds	4	Magnetic properties of coordination compounds	Nil	

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TEACHING AND EVALUATION PLAN

Name of the teacher: Prof. Yogesh Vilas Zagade	Year: 2021-2022
Semester: I	
Subject: Organic Stereochemistry and Asymmetric synthesis M.Sc II	Paper: CHO-352 Class:

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remark
1	Nov2021	1 & 2	13	8	Confirmation of polysubstituted cyclohexane	8	Confirmation of polysubstituted cyclohexane	Nil	--
2	Nov 2021	3 & 4	12	10	Stereochemistry of fused and Bridged ring system	10	Stereochemistry of fused and Bridged ring system	Nil	--
3	Dec 2021	1 & 2	13	7	Determination of configuration by cams rule and Different model	8	Determination of configuration by cams rule and Different model	1	Extra lecture was conducted on sunday
4	January 2022	1 & 2	11	8	ASymmetric synthesis chiral pool strategy	8	ASymmetric synthesis chiral pool strategy	Nil	--
5	January 2022	3 & 4	12	8	Asymmetric organic catalysis to a Asymmetric hydrogenations	8	Asymmetric organic catalysis to a Asymmetric hydrogenations	Nil	--



Semester II

Paper: IV CH0- 452 medicinal Chemistry &amp; It's Applications

Year : 2021-22

Part I : Teaching Plan						Part II : Evaluation of Plan			
1	2	3	4	5	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remark
1	March 2022	4	6	2	Introduction to medicinal chemistry	2	Introduction to medicinal chemistry	Nil	--
2	Apr 2022	1 & 2	12	5	Introduction to Biomolecules, Pharmacodynamics of drug molecules	9	Introduction to Biomolecules, Pharmacodynamics of drug molecules	4	Extra lecture wa conductec
3	Apr 2022	3 & 4	12	8	Absorption, Distribution, Metabolism and Excretion study of drug molecules	11	Absorption, Distribution, Metabolism and Excretion study of drug molecules	3	Extra lecture wa conductec
4	May 2022	1 & 2	12	8	Study of coenzyme, Solid phase peptide Synthesis	9	Study of coenzyme, Solid phase peptide Synthesis	1	lecture wa conductec
5	May 2022	3	6	2	Active & Passive Transport	2	Active & Passive Transport	--	-+

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