

# Vivekanand College, Kolhapur (Empowered Autonomous)

## Department of Chemistry

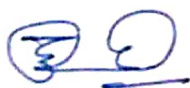
### Internal Examination 2023-24

All M.Sc. students are informed that their internal examination for **Sem-II** will take place as per the timetable.

Date: 26/04/2024

### M.Sc. I Sem II (NEP)

Sr No	Subject/Paper	Date, and Time	Topics
1	Organic & Inorganic chemistry.	02/05/2024 12.00-1.00 pm	1. Name Reaction 2. Chemistry of non-transition elements
2	Physical & Analytical Chemistry	03/05/2024 12.00-1.00 pm	1. Thermodynamics 2. UV and IR spectroscopy
3	Elective: Analytical Chemistry	04/05/2024 12.00-1.00 pm	1. Advanced Liquid Chromatography. 2. Ion Chromatography.
	Elective: Organic Chemistry	04/05/2024 12.00-1.00 pm	1. Oxidation up to PCC 2. Reduction Catalyst
	Elective: Inorganic Chemistry	04/05/2024 12.00-1.00 pm	1. Oxygen Transport and Storage 2. Application of Co-Ordination Compounds



Coordinator

CO-ORDINATOR  
M.Sc.(ORGANIC & INORGANIC CHEMISTRY)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



Head

DEPARTMENT OF CHEMISTRY  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

PG Department of Chemistry

M.Sc. I, Sem II Chemistry

Internal Examination 2023-24

Paper - Inorganic & Organic Chemistry

Day and Date: Thursday 02/05/2024

Marks: 20

Time: 12.00 to 1.00 pm

- Instructions:** 1. All questions are compulsory.  
2. Figures to draw necessary diagram wherever necessary.  
3. Each question carries 10 Marks.

Q. 1 What is polymorphism? Discuss polymorphism in carbon.

OR

Q. 1 Discuss the general properties of non-transition element.

Q. 2 Explain the following reactions with detailed mechanism.

- a) Mitsunobu reaction b) Arndt-Eistert reaction

OR

Q. 2 Explain the following reactions with detailed mechanism.

- a) Prins reaction b) Darzen reaction



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**HEAD**

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VIVEKANAND COLLEGE (EMPOWERED AUTONOMOUS),  
KOLHAPUR

M.Sc. (Part-I) (Semester-II) (NEP)  
Internal Examination, May 2023-24  
Physical & Analytical Chemistry

Date: 03/05/2024

Time: 1 hour

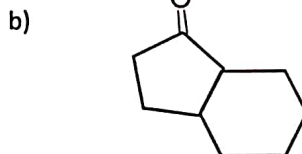
Total Marks: 20

Q.1 Long Answer Questions (Attempt any one)

- Derive Maxwell relations in brief.
- Explain factors affecting vibrational frequency in IR spectroscopy.

Q.2 Short Answer Questions (Attempt any two)

- Gibbs Duhem equation.
- Entropy occurring in phase transition.
- Calculate  $\lambda_{\max}$  for following compound by using Fischer rule.



- What are chromophore and auxochrome? Explain the terms bathochromic shift, hyperchromic shift.



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**VIVEKANAND COLLEGE (EMPOWERED AUTONOMOUS),  
KOLHAPUR**

**M.Sc. (Part-I) (Semester-II) (NEP)  
Internal Examination, May 2023-24  
Organic Chemistry (Elective)**

**Date: 04/05/2024**

**Time: 1 hour**

**Total Marks: 20**

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**Q.1 Long Answer Questions (Attempt any Two)**

i) What is oxidation? Discuss the applications of  $\text{CrO}_3$  and  $\text{MnO}_2$ .

OR

i) Discuss the applications of Chloronil and Swern's oxidizing agent.

ii) What is reduction? Discuss the applications of Birch reduction and Wolf Kishner reduction.

OR

ii) Discuss the applications of sodium in ethyl alcohol and sodium borohydride as an reducing agent.



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**VIVEKANAND COLLEGE (EMPOWERED AUTONOMOUS),  
KOLHAPUR**

**M.Sc. (Part-I) (Semester-II) (NEP)  
Internal Examination, May 2023-24  
Analytical Chemistry (Elective)**

**Date: 04/05/2024**

**Time: 1 hour**

**Total Marks: 20**

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**Q.1 Long Answer Questions (Attempt any Two)**

- i) What is mean by ion chromatography? Explain Instrumentation of ion chromatography and applications.
- ii) Explain principle of ion chromatography and commercial scope of ion chromatography.
- iii) Explain in detail instrumentation of HPLC. Write any four applications of HPLC.
- iv) Explain in-detail instrumentation of super critical fluid chromatography.



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Vivekanand College, Kolhapur (Empowered Autonomous)

PG Department of Chemistry

M.Sc. I, Sem II Chemistry

Internal Examination 2023-24

Paper Elective- Inorganic chemistry

Day and Date: Thursday 04/05/2024

Marks: 20

Time: 12.00 to 1.00 pm

**Instructions:** 1. Write any two questions.

2. Figures to draw necessary diagram wherever necessary.

3. Each question carries 10 Marks.

- Q. 1 What are the applications of metal complexes in medicinal chemistry?
- Q. 2 Explain the use metal complexes in industrial process.
- Q. 3 Explain the structural features of hemocyanin and hemerythrin and their role in oxygen transport.
- Q. 4 Discuss the Perutz mechanism to show the different interactions among the globin protein chains to provide the T- form and R-form of hemoglobin.



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VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

Department of Chemistry

M. Sc. I (Sem. II)

Internal Examination

Organic Chemistry: 2023-24

Attendance of Students

Sr. No.	Exam Seat No.	Name of the Students	02/05/24	03/05/24	04/05/24
1	468	AMBEKAR SAKSHI M	<u>Ambekar</u>	<u>Ambekar</u>	<u>Ambekar</u>
2	469	BHISE GANESH D	<u>G. Bhise</u>	<u>G. Bhise</u>	<u>G. Bhise</u>
3	470	BHOSALE PRADNYA G			
4	471	CHOUGULE ASHUTOSH A	<u>CA</u>	<u>CA</u>	<u>CA</u>
5	472	DALAVI RUTURAJ N	<u>Balvi</u>	<u>Balvi</u>	<u>Balvi</u>
6	473	DESAI SANCHITA P	<u>Fesal</u>	<u>Fesal</u>	<u>Fesal</u>
7	474	GADIKAR VEENA M	<u>VMG</u>	<u>VMG</u>	<u>VMG</u>
8	475	JABAGOND ANJALI P	<u>Anjali</u>	<u>Anjali</u>	<u>Anjali</u>
9	476	JADHAV ANURAG B	<u>Anurag Jadhav</u>	<u>Anurag Jadhav</u>	<u>Anurag Jadhav</u>
10	477	JADHAV SHANKAR G	<u>Shankar</u>	<u>Shankar</u>	<u>Shankar</u>
11	478	JADHAVE SOURABH R			
12	479	KAMBLE RUTUJA R	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
13	480	KARADE YOGESH NITIN			
14	481	KARALE PRATIK SANJAY	<u>Pratik</u>	<u>Pratik</u>	<u>Pratik</u>
15	482	KARNIK SAIRAJ R	<u>Sairaj</u>	<u>Sairaj</u>	<u>Sairaj</u>
16	483	KOTMIRE ROHIT DATTATRAY	<u>RDK</u>	<u>RDK</u>	<u>RDK</u>
17	484	KULKARNI NUPUR SUJIT	<u>Nupur</u>	<u>Nupur</u>	<u>Nupur</u>
18	485	KULKARNI SHRUTI SHRIPAD			
19	486	KUMBHAR DHANASHRI D	<u>D. Kumbhar</u>	<u>D. Kumbhar</u>	<u>D. Kumbhar</u>
20	487	LAD NIRAJ RAMESH			
21	488	MANDEKAR AISHWARYA VIJAY			

22	489	MOHITE SHITAL SUNIL	<u>Shohite</u>	<u>Shohite</u>	<u>Shohite</u>
23	490	NAIKWADE SHOAIKAKHTAR M			
24	491	PANHALKAR RADHIKA SUNIL	<u>Radhika</u>	<u>Radhika</u>	<u>Radhika</u>
25	492	PATIL DIVYA UMESHCHANDRA	<u>DuPatil</u>	<u>DuPatil</u>	<u>DuPatil</u>
26	493	PATIL HARSHADA ARUN	<del>Harshada</del>	<del>Harshada</del>	<del>Harshada</del>
27	494	PATIL MAYUR PRAKASH	<u>mayurp</u>	<u>mayurp</u>	<u>mayurp</u>
28	495	PATIL RUTUJA RANGRAO	<u>Rutuja</u>	<u>Rutuja</u>	<u>Rutuja</u>
29	496	PATIL SHIVANI PRAKASH	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>
30	497	PATIL VISHWAJIT TANAJI			
31	498	PATTANSHETTI SAKSHI R	<u>Sakshi R.P.</u>	<u>Sakshi R.P.</u>	<u>Sakshi R.P.</u>
32	499	PATWARDHAN VARADA MILIND			
33	500	SAMBARE PRATHMESH M	<u>Prathmesh</u>	<u>Prathmesh</u>	<u>Prathmesh</u>
34	501	SANYAR HARSHAD MAHADEV			
35	502	SAWANT NISHANT NETAJI	<u>Sawant</u>	<u>Sawant</u>	<u>Sawant</u>
36	503	SUTAR ABOLI KRUSHNAT	<u>Aboli</u>	<u>Aboli</u>	<u>Aboli</u>
37	504	SUTAR OMKAR SANJAY	<u>Sutar</u>	<u>Sutar</u>	<u>Sutar</u>
38	505	TASHILDAR SHIVANI NAMDEV	<u>S.Tashildar</u>	<u>S.Tashildar</u>	<u>S.Tashildar</u>
39	506	VANKUNDRE PUNAM ARUN	<u>Punam</u>	<u>Punam</u>	<u>Punam</u>
40)		<u>Agadave P.S</u>	<u>Agadave</u>	<u>Agadave</u>	<u>Agadave</u>
41)		Mulla Aqsa Manoj	<u>Amr</u>	<u>Amr</u>	<u>Amr</u>

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Department of Chemistry

M. Sc. I (Sem. II)

Internal Examination

Analytical Chemistry: 2023-24

Attendance of Students

Sr. No.	Exam Seat No.	Name of the Students	02/05/24	03/05/24	04/05/24
1	519	ZUNAKE PAVAN BALU			
2	520	AGALAVE PRATHMESH SURESH	<u>Agalave</u>	<u>Agalave</u>	<u>Agalave</u>
3	521	CHILE SURAJ KRISHNAT	<u>Chile</u>	<u>Chile</u>	<u>Chile</u>
4	522	CHOTHE SAMRUDDHI SHASHIKANT	<u>Chotha</u>	<u>Chotha</u>	<u>Chotha</u>
5	523	DESAI AKANKSHA ABASAHEB	<u>Desai</u>	<u>Desai</u>	<u>Desai</u>
6	524	DESAI GURUDATTA BHAUSO	<u>Desai</u>	<u>Desai</u>	<u>Desai</u>
7	525	DESAI KULSUM JAVED	<u>Desai</u>	<u>Desai</u>	<u>Desai</u>
8	526	DESAI NISHANT DINKAR	<u>Desai</u>	<u>Desai</u>	<u>Desai</u>
9	527	DEULKAR RADHIKA MAHADEV	<u>Deulkar</u>	<u>Deulkar</u>	<u>Deulkar</u>
10	528	GASTI BHUPALI NARASAGOUDA	<u>Gasti</u>	<u>Gasti</u>	<u>Gasti</u>
11	529	GHUGARE PRANALI VIJAY			
12	530	GILBILE RUPALI SADASHIV	<u>Gilbile</u>	<u>Gilbile</u>	<u>Gilbile</u>
13	531	GONDKAR RASIKA MAHESH	<u>Gondkar</u>	<u>Gondkar</u>	<u>Gondkar</u>
14	532	HAVAL PRATHAMESH MUKUND	<u>Haval</u>	<u>Haval</u>	<u>Haval</u>
15	533	INGALE SHRUTIKA MANIK	<u>Ingaile</u>	<u>Ingaile</u>	<u>Ingaile</u>
16	534	INGAWALE GAURI KUNDALIK	<u>Ingaile</u>	<u>Ingaile</u>	<u>Ingaile</u>
17	535	JADHAV GOURI VIJAY	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>
18	536	JADHAV PRACHI PRAKASH	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>
19	537	JADHAV PRIYANKA DNYANDEV	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>
20	538	JAGTAP SANKET DADASO			

21	539	JANGAM PRANAV BHIKAJI	<del>PBhang</del>	<del>PBhang</del>	<del>PBhang</del>
22	540	KARAPE SWARUP JAYSING			
23	541	KHARDEKAR SANYOGITA C	<del>Kh</del>	<del>Kh</del>	<del>Kh</del>
24	542	MAGDUM NIVEDITA RAJKUMAR	<del>MDum</del>	<del>MDum</del>	<del>MDum</del>
25	543	MORE SHIVANI PANURANG	<del>Ms</del>	<del>Ms</del>	<del>Ms</del>
26	544	PATIL GAYATRI SHAMRAO	<del>GPatil</del>	<del>GPatil</del>	<del>GPatil</del>
27	545	PATIL PARTH PRAKASH	<del>PPatil</del>	<del>PPatil</del>	<del>PPatil</del>
28	546	PATIL SHRAVANI BALVANT	<del>SPatil</del>	<del>SPatil</del>	<del>SPatil</del>
29	547	PATIL SUSHMITA TANAJI	<del>SPatil</del>	<del>SPatil</del>	<del>SPatil</del>
30	548	PATIL SWARUP SARJERAO	<del>SPatil</del>	<del>SPatil</del>	<del>SPatil</del>
31	549	PATIL TEJAS SIDRAM	<del>TPatil</del>	<del>TPatil</del>	<del>TPatil</del>
32	550	PETKAR SANCHITA SANJAY	<del>SPetkar</del>	<del>SPetkar</del>	<del>SPetkar</del>
33	551	RAVAN AMOL ARUN	<del>RAvan</del>	<del>RAvan</del>	<del>RAvan</del>
34	552	SALOKHE ASHWINI VISHNU	<del>ASalokhe</del>	<del>ASalokhe</del>	<del>ASalokhe</del>
35	553	SHAIKH MUSKAN IMTIYAJ	<del>MShaikh</del>	<del>MShaikh</del>	<del>MShaikh</del>
36	554	SUTAR MUSKAN KALANDAR	<del>MSutar</del>	<del>MSutar</del>	<del>MSutar</del>
37	555	TAKAWADE ALIN JAVED			
38	556	TORASKAR ROHIT UTTAM	<del>TRaskar</del>	<del>TRaskar</del>	<del>TRaskar</del>
39	557	WAGAVEKAR PRERANA JITENDRA			
40	558	WAGH RUTUJA SONAJI	<del>WRwagh</del>	<del>WRwagh</del>	<del>WRwagh</del>
41	559	ZIRANGE ANURADHA ARJUN	<del>AZirange</del>	<del>AZirange</del>	<del>AZirange</del>



*(Signature)*

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Department of Chemistry

M. Sc. I (Sem. II)

Internal Examination

Inorganic Chemistry: 2023-24

Attendance of Students

Sr. No.	Exam Seat No.	Name of the Students	02/05/24	03/05/24	04/05/24
1	507	DHATUNDE SAKSHI GANESH	<u>Dhatunde</u>	<u>Dhatunde</u>	<u>Dhatunde</u>
2	509	JADHAV PRAJAKTA HAMBIR			
3	510	KORE AKASH SATISH			
4	511	MUGALIKAR PRIYANKA RANJEET	<u>Priyanka</u>	<u>Priyanka</u>	<u>Priyanka</u>
5	512	MULLA AQSA MANOJ	<u>Amulla</u>	<u>Amulla</u>	<u>Amulla</u>
6	513	NARANDE POONAM DHANAJI	<u>Narande</u>	<u>Narande</u>	<u>Narande</u>
7	514	NAVALAGI BHAKTI RAVASO	<u>B.R.Navigi</u>	<u>B.R.Navigi</u>	<u>B.R.Navigi</u>
8	515	PATNI REHAN SULTAN			
9	516	PUJARI DHANASHRI BHAUSO			
10	517	SURYAVANSHI SANIKA PRATAP			
11	518	TAMBEKAR NIKITA NIVRUTTI	<u>NT</u>	<u>NT</u>	<u>NT</u>



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