

Vivekanand College, Kolhapur (Autonomous)

Department of Chemistry

M. Sc. II Sem. III Analytical Chemistry

Theory Internal Examination 2023-24

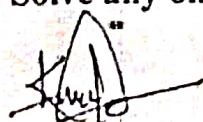
All the students of M.Sc. II Analytical chemistry are hereby informed that their theory Internal Examination will be conducted from 07<sup>th</sup> November, 2023 to 10<sup>th</sup> November, 2023. The examination will be conducted only one time, students are directed to attend the examination without fail. Syllabus and schedule for examination will be as mentioned in following table.

Sr. No.	Name of Paper	Topics
1	Advanced Analytical Techniques 07/11/2023 Time: <del>11:30</del> to 12:30 pm <sup>to</sup> 1:30 pm	Unit II – Advanced Instrumentation Techniques A Unit II - Advanced Instrumentation Techniques B
2	Organo Analytical Chemistry 08/11/2023 Time: <del>11:30</del> to 12:30 pm <sup>to</sup> 1:30 pm	Unit I – Hyphenated Techniques Unit II – Pesticide Analysis
3	Electroanalytical Techniques 09/11/2023 Time: <del>11:30</del> to 12:30 pm <sup>to</sup> 1:30 pm	Unit I – Voltametry Unit II – ion selective Electrode and electrophoresis
4	Environmental Chemical Analysis 10/11/2023 Time: <del>11:30</del> to 12:30 pm <sup>to</sup> 1:30 pm	Unit I – Air and Water Pollution Unit II – Organic Pollutants and their analysis

\*Nature of question paper: -

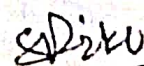
Q.1 Solve any one out of a) & b) -----10 M

Q.2 Solve any one out of a) & b) -----10 M



Dr. K. A. Undale  
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Dr. Mrs. S. D. Shirke

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**M.Sc. (Part-II) (Semester-III) Internal Examination 2023-24**  
**Paper No IX: ADVANCED ANALYTICAL TECHNIQUES**  
**ANALYTICAL CHEMISTRY**

Day Date: 07/11/2023

Total Marks: 20

Time: 12.30 - 1.30 pm

<b>Q1. Answer the following questions (Anyone)</b>		<b>[10]</b>
a)	Explain principle and instrumentation of Energy dispersive X-ray spectroscopy (EDS).	
b)	Write down advantages, disadvantages and applications of Scanning electron microscopy (SEM).	
<b>Q2. Answer the following questions (Anyone)</b>		<b>[10]</b>
a)	Explain principle and instrumentation of Secondary ion mass spectroscopy (SIMS).	
b)	Write down advantages ,disadvantages and application of Auger electron spectroscopy (AES).	



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M.Sc. (Part-II) (Semester-III) Internal Examination 2023-24  
ANALYTICAL CHEMISTRY  
Paper No XI: Electroanalytical Techniques In Chemical Analysis

Day and Date: 09/11/2023

Total Marks: 20

Time: 12.30 - 01.30 pm

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Q1. Answer the following questions (Anyone)

[10]

- Explain the Glass membrane electrode, its Application, Advantages, and Disadvantages.
- Explain in brief Capillary Electrophoresis, its Advantages, Disadvantages, and Application.

Q2. Answer the following questions (Anyone)

[10]

- Explain in details Stripping Voltammetry.
  - Define Voltammetry and Voltametric Electrodes in details.
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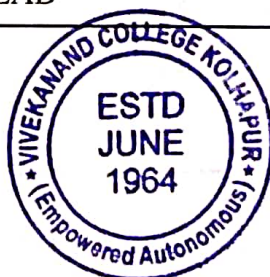
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DEPARTMENT OF CHEMISTRY

M.Sc. II Analytical Chemistry Internal Exam Student List Year 2023-24

SrNo	Roll No.	StudentName	StudentMobileNo	Sign
1	446	ADSULE TEJAS ASHOK	8180841507	<i>Tejas</i>
2	448	BATE DNYANDEV RAMDAS	7387801897	<i>Dnyande</i>
3	449	BELGUDRI SOURABH KASHINATH	9172312650	<i>Sourabh</i>
4	450	JADHAV AISHWARYA BHIMARAO	9421206856	<i>Aishwarya</i>
5	451	JADHAV KASABEKAR PRACHI SANDEEP	9325250179	<i>Prachi</i>
6	452	KARALE NANDINI NANDKUMAR	8484885702	<i>Nandini</i>
7	429	KURKUTE PARTH LALAJI	9922383293	<i>Parth</i>
8	453	LAD ABHIJEET KERABA	8329973157	<i>Abhijeet</i>
9	455	MANG SUNIL PRAKASH	7666832622	<i>Sunil</i>
10	456	MUNDHE SAIRAJ SHIRAJ	8308367372	<i>Sairaj</i>
11	457	PATIL ANUJA RANGRAO	8698882743	<i>Anuja</i>
12	458	PATIL MRUNALI BHARAT	9309711989	<i>Mrunali</i>
13	459	PATIL PRASHANT BASAVANI	7083475117	<i>Prashant</i>
14	460	PATIL RUTUJA DATTATRAY	8010073868	<i>Rutuja</i>
15	461	PATIL UTKARSHA CHARUDATT	9175366628	<i>Utkarsha</i>
16	441	PATTANKUDE CHAITALI SHITAL	9307708198	<i>Chaitali</i>
17	462	RANAGE SNEHAL KUNDAN	7499247141	<i>Snehal</i>
18	463	SAWANT SHREYA GOPAL	9503947393	<i>Shreya</i>
19	464	SUTAR SWAGAT DADASO	9922635983	<i>Swagat</i>
20	465	TALKAR AKANKSHA VIJAY	9699505025	<i>Akanksha</i>
21	467	TALKAR PRATIKSHA VIJAY	9011779550	<i>Pratiksha</i>
22	430	TUSHAR TANAJI LAD	9673089292	<i>Tushar</i>



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**M.Sc. (Part-II) (Semester-III) Internal Examination 2023-24**  
**Paper No XII: ENVIRONMENTAL CHEMICAL ANALYSIS AND CONTROL**  
**ANALYTICAL CHEMISTRY**

Day and Date: 10/11/2023

Total Marks: 20

Time: 12.30 - 01.30 pm

<b>Q1. Answer the following questions (Anyone)</b>		<b>[10]</b>
a)	Explain the different monitoring method and corresponding devices used to control the air pollution.	
b)	What is Pollution ? Discuss different types or classification of pollutants along with suitable Example.	
<b>Q2.</b>	<b>Write a note on the following (Any Two)</b>	<b>[10]</b>
a)	Write examples of organo- phenolic compounds. Explain the analysis of organo-chlorine in pesticides.	
b)	What are the health hazards of organic mercury containing compounds?	



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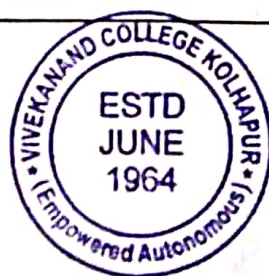
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M.Sc. (Part-II) (Semester-III) Internal Examination 2023-24  
Paper No X: ORGANO ANALYTICAL CHEMISTRY  
ANALYTICAL CHEMISTRY

Day and Date: 08/11/2023

Total Marks: 20

Time: 12.30 - 1.30 pm

Q1. Answer the following questions (Anyone)		[10]
a)	Discuss in brief factors affecting IR Stretching frequency.	
b)	Explain the principle of UV spectroscopy and its instrumentation in details.	
Q2. Answer the following questions (Anyone)		[10]
a)	Elaborate on the sample pretreatments and processing method used in pesticide residue analysis.	
b)	What are the main categories of pesticides, and how can they be classified based on their chemical properties and uses.	



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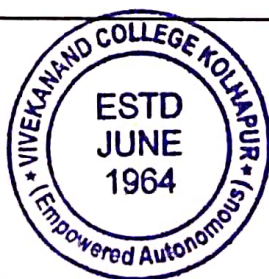


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