



INDIRA GANDHI NATIONAL OPEN UNIVERSITY  
REGIONAL CENTRE BHOPAL  
Practical Counselling Schedule for PGDAG Programme  
LSC- IGNOU Study Centre 1506 Holkar Science College Indore  
Department of Chemistry

Practical Schedule MCHL-001 : BASIC ANALYTICAL CHEMISTRY LAB :  
Quantitative and Qualitative

Day	Session 1 Time 9:00 pm to 1:00 pm	Session 2 Time 1:30 pm to 5:30 PM
21 <sup>st</sup> August 2024 (Wednesday)	<b>Exercise 1 :</b> Calibration of volumetric apparatus and weights, and statistical treatment of data	<b>Exercise 2 :</b> Determination of percentage of tin in brass sample gravimetrically
22 <sup>nd</sup> August 2024 (Thursday)	<b>Exercise 3 :</b> Determination of nickel(II) in nickel steel gravimetrically using dimethylglyoxime	<b>Exercise 4 :</b> Determination of pKa value of phosphoric acid titrimetrically
23 <sup>rd</sup> August 2024 (Friday)	<b>Exercise 5 :</b> Determination of total alkalinity of OH <sup>-</sup> , HCO <sub>3</sub> <sup>-</sup> , CO <sub>3</sub> <sup>2-</sup> for a water sample	<b>Exercise 6 :</b> Determination of ascorbic acid in a vitamin C tablet iodimetrically
24 <sup>th</sup> August 2024 (Saturday)	<b>Exercise 7 :</b> Determination of hard water	<b>Exercise 8 :</b> Determination of available chlorine in a bleaching powder sample iodometrically
25 <sup>th</sup> August 2024 (Sunday)	<b>Exercise 9 :</b> Determination of zinc by K <sub>4</sub> Fe(CN) <sub>6</sub> by precipitation titration	<b>Exercise 10 :</b> Determination of silver by Mohr's/Volhard's/Fajan's method
27 <sup>th</sup> August 2024 (Tuesday)	<b>Examination</b> 10:00AM TO 01:00PM	

Contact person: Dr. Bijendra Rai

9425450749

Dr. Sanjay Vyas  
Coordinator 1506

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Dr. Swagata Gupta



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Practical Schedule MCHL-002 : SEPARATION METHODS LAB :  
Quantitative and Qualitative

Day	Session 1 Time 9:00 pm to 1:00 pm	Session 2 Time 1:30 pm to 5:30 PM
28 <sup>th</sup> August 2024 (Wednesday)	<b>Exercise 1 :</b> Liquid- liquid extraction behaviour of Fe (III) and Ni (II) in tri- n-butyl phosphate (TBP) from hydrochloric acid medium	<b>Exercise 2 :</b> Separations of Fe (III) and Ni (II) using TBP-HCl liquid- liquid extraction system
29 <sup>th</sup> August 2024 (Thursday)	<b>Exercise 3 :</b> Determination of ion exchange capacity of a cation and an anion exchanger	<b>Exercise 4 :</b> Determination of total milliequivalents of metal ions in tap/sea water sample using a strong cation exchanger from HCl medium
30 <sup>th</sup> August 2024 (Friday)	<b>Exercise 5 :</b> Separation of Fe (III) and Ni (II) using a strongly basic anion exchanger	<b>Exercise 6 :</b> Separation of cations by paper chromatography
31 <sup>st</sup> August 2024 (Saturday)	<b>Exercise 7 :</b> Separation of amino acids by chromatography	<b>Exercise 8 :</b> Separation of carbohydrates by thin layer chromatography
01 <sup>st</sup> September 2024 (Sunday)	<b>Exercise 9 :</b> Separation of chlorophyll pigments by column chromatography	<b>Exercise 10 :</b> Separation of iron and aluminium by column chromatography
02 <sup>nd</sup> September 2024 (Monday)	<b>Examination</b> 10:00AM TO 01:00PM	

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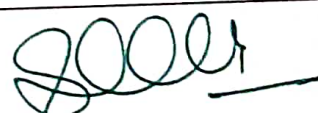
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Practical Schedule MCHL-003 : SPECTROSCOPIC METHODS LAB :  
Quantitative and Qualitative

Day	Session 1 Time 9:00 pm to 1:00 pm	Session 2 Time 1:30 pm to 5:30 PM
03 <sup>rd</sup> September 2024 (Tuesday)	<b>Exercise 1 :</b> Spectrophotometric determination of Fe(II) ions using 1,10-orthophenanthroline	<b>Exercise 2 :</b> Spectrophotometric determination of Ni(II) ions using dimethylglyoxime.
04 <sup>th</sup> September 2024 (Wednesday)	<b>Exercise 3 :</b> Spectrophotometric determination of Cr and Mn ions in a mixture of the two	<b>Exercise 4 :</b> Spectrophotometric Determination of Methyl Ethyl Ketone
05 <sup>th</sup> September 2024 (Thursday)	<b>Exercise 5 :</b> Determination of pK <sub>a</sub> value of indicators spectrophotometrically	<b>Exercise 6 :</b> Turbidometric determination of sulphate ions
06 <sup>th</sup> September 2024 (Friday)	<b>Exercise 7 :</b> Characterisation of functional group in organic compounds using IR spectroscopy	<b>Exercise 8 :</b> Structural Determination of Simple Organic Compounds Using <sup>1</sup> H-NMR Spectrometry
07 <sup>th</sup> September 2024 (Saturday)	<b>Exercise 9 :</b> Determination of the structure of an organic compound using UV, IR, NMR, and Mass spectra	<b>Exercise 10 :</b> Flame photometric determination of Na and K or Ca and Mg using internal standard method
09 <sup>th</sup> September 2024 (Monday)	<b>Examination</b> 10:00AM TO 01:00PM	

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Practical Schedule MCHL-004 :  
ELECTROANALYTICAL AND OTHER METHODS LAB :  
Quantitative and Qualitative

Day	Session 1 Time 9:00 pm to 1:00 pm	Session 2 Time 1:30 pm to 5:30 PM
10 <sup>th</sup> September 2024 (Tuesday)	<b>Exercise 1 :</b> pH titration of a strong acid (battery acid)	<b>Exercise 2 :</b> pH titration of a weak acid – determination of $pK_a$ of acetic acid
11 <sup>th</sup> September 2024 (Wednesday)	<b>Exercise 3 :</b> Potentiometric titration of a strong acid with a strong base using quinhydrone electrode	<b>Exercise 4 :</b> Potentiometric titration of $Fe^{2+}$ with $Cr_2O_7^{2-}$
12 <sup>th</sup> September 2024 (Thursday)	<b>Exercise 5 :</b> Potentiometric determination of $Cl^-$ ion content of common salt using $AgNO_3$	<b>Exercise 6 :</b> Conductometric titration of a strong acid with a strong base
13 <sup>th</sup> September 2024 (Friday)	<b>Exercise 7 :</b> Conductometric determination of acetic acid content of vinegar	<b>Exercise 8 :</b> Conductometric titration of a mixture of a strong acid and weak acid with a base
14 <sup>th</sup> September 2024 (Saturday)	<b>Exercise 9 :</b> Identification and determination of $Cd^{2+}/Pb^{2+}/Zn^{2+}$ by polarography	<b>Exercise 10 :</b> Amperometric Titration of $Pb^{2+}$ with $Cr_2O_7^{2-}$
15 <sup>th</sup> September 2024 (Sunday)	<b>Exercise 11 :</b> Determination of the solubility of a sparingly soluble salt by radiotracer method	
17 <sup>th</sup> September 2024 (Tuesday)	<b>Examination</b> 10:00AM TO 01:00PM	

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