

PARVATHANENI BRAHMAYYA SIDDHARTHA COLLEGE OF ARTS & SCIENCE Autonomous

Siddhartha Nagar, Vijayawada–520010 *Re-accredited at 'A+' by the NAAC*

Course Code				23CHMIP231					
Title of the Course				Organic Qualitative Analysis					
Offered to: (Programme/s)				B.Sc. Hons Botany & Zoology					
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Year of Introduction: 2			24-25	Semester:		3			
Course Category: MINOR			Course Relates to: GLOBAL						
Year of Revision: 2024			Percentage: NA						
Type of the Course:				Employability/ Skill development					
Crosscutting Issues of the Course :				NA					
Pre-requisites, if any				Basic knowledge of organic chemistry and fundamental laboratory skills.					

Course Description:

This course provides an in-depth exploration of qualitative analysis techniques used in organic chemistry to identify and characterize organic compounds. Students will learn to apply systematic methods for the analysis of organic substances, including the use of traditional and modern analytical techniques.

Course Aims and Objectives:

S.NO	COURSE OBJECTIVES
1	Perform and interpret various qualitative tests for organic functional groups.
2	Apply systematic approaches to identify unknown organic compounds.
3	Skills in interpreting experimental data and drawing conclusions about the identity of organic compounds.
4	Analyze and present experimental data effectively.
5	Understand suitable derivatives for organic compounds0

Course Outcomes

At the end of the course, the student will be able to...

CO NO	COURSE OUTCOME	BTL	РО	PSO
CO1	Remember different tests for identification of organic compounds	K1	PO2	PSO1
CO2	Remember MP, BP for identification of organic compounds	K1	PO1	PSO1
CO3	Understand suitable derivatives for identification of organic compounds	K2	PO2	PSO2
CO4	Understand MP, BP for identification of organic compounds	K2	PO2	PSO 2
CO5	Apply systematic approaches to identify unknown organic compounds	K3	PO1	PSO3

For BTL: K1: Remember; K2: Understand; K3: Apply; K4: Analyze; K5: Evaluate; K6: Create

CO-PO MATRIX										
CO NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1		2						1		
CO2	1							2		
CO3		2							2	
CO4		2							2	
CO5	3									2

Use the codes 3,2,1 for High, Moderate and Low correlation Between CO-PO-PSO respectively

Syllabus

Analysis of an organic compound through systematic qualitative procedure for functional group identification including the determination of melting point and boiling point with suitable derivatives. Alcohols, Phenols, Aldehydes, Ketones, Carboxylic acids, Aromatic primary amines, amides and simple sugars.

Co-curricular activities and Assessment Methods

- 1. Continuous Evaluation: Monitoring the progress of student's learning.
- 2. Class Tests, Worksheets and Quizzes.
- 3. Presentations, Projects and Assignments and Group Discussions: Enhances critical thinking skills and personality.
- 4. SEMESTER -End Examination: critical indicator of student's learning and teaching methods adopted by teachers throughout the SEMESTER.

Reference books:

- 1. Vogel A.I. Practical Organic Chemistry, Longman Group Ltd.
- 2. Bansal R.K. Laboratory Manual of Organic Chemistry, Wiley-Eastern.
- 3. Ahluwalia V. K. and Agarwal R. Comprehensive Practical Organic Chemistry, University press.

References-weblinks

- 1. <u>https://www.toppr.com/guides/chemistry/organic-chemistry/qualitative-analysis-of-organic-compounds/</u>
- 2. <u>http://www.chem.uwimona.edu.jm/lab_manuals/c10expt25.html</u>
- 3. <u>https://chem.libretexts.org/Ancillary_Materials/Laboratory_Experiments/Wet_Lab_Exp</u> <u>eriments/Organic_Chemistry_Labs/Intermediate_Chemical_Experimentation/02%3A_Q</u> <u>ualitative_Organic_Analysis/2.01%3A_</u>



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(A) Semester End Lab Examination

Course Code: 23CHMIP231

Title	of the Course: ORGANIC QUALITATI	VE ANALYSIS				
Offer Sem Max	red to: B.Sc. Hons Botany & Zoology ester: III . Time: 3 Hrs	Max.Marks: 50 (CIA+SEE)				
I.	Answer the following.	Max. Marks: 30 Marks				
	Q1					
	Q2					
	Q3					
	Q4					
	Q5					
II	Viva	3 Marks				
III	Record	2 Marks				
CON	TINUOUS ASSESMENT (Internal)	15 MARKS				
ΤΟ	$\Gamma AL: (A) + (B) =$	50MARKS				

(B)