Semester Lecture Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim-Goa		
Name of Faculty: Dr. Dattaprasad D. Narulkar	**Subject:** Chemistry	
Paper code: CHC-142 (Skills in Qualitative Organic Analysis)	**Program/Course: F.Y. B.Sc. (skill)**	**Division: -**
Academic year: 2024 - 2025	**Semester: I**	**Total Lectures: 60 (Practical)**

Course Objectives:

1. **To get hands on experience for the systematic qualitative analysis of the organic compounds.**
2. **To learn the purification techniques for organic compounds.**

Course Learning Outcome:

1. **Student will get hands on experience for the systematic qualitative analysis of the organic compounds.**
2. **Student will acquire skills in applying purification and separation techniques for organic compounds**

Month	Lectures From	Lectures To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
June	28/06/2024	29/07/2024	01	**1.Purification of organic compounds:** i) Solids by recrystallization process using water and ethanol as solvent and determination of melting point.		Practical demonstration and supervision of thje work	
July	1/07/2024	6/07/2024	01	ii) Simple distillation of acetone and determination of boiling point. iii) Sublimation of naphthalene/ anthracene/ camphor and determination of melting point.			Ref 1 and 2
July	8/07/2024	13/07/2024	01	**2.Identification of unknown organic compounds based on water solubility, chemical type, elemental analysis, group test and physical constants**(organic spotting) i) Water soluble solids (Neutral)			Ref 1 and 2
July	15/07/2024	20/07/2024	02	i) Water soluble solids (Acid)			Ref 1 and 2
July	22/07/2024	27/07/2024	02	i) Water soluble solids (Acid)			Ref 1 and 2
July-August	29/07/2024	03/08/2024	02	ii) Water insoluble solids (Acid)	Determination of unknown organic compound		Ref 1 and 2

August	05/08/2024	10/08/2024	02	ii) Water insoluble solids (Acid)			Ref 1 and 2
August	12/08/2024	17/08/2024	02	ii) Water insoluble solids (Base)			Ref 1 and 2
August	19/08/2024	24/08/2024	02	ii) Water insoluble solids (Base)			Ref 1 and 2
August	26/08/2024	31/09/2024	02	ii) Water insoluble solids (Phenol)			Ref 1 and 2
September	02/09/2024	05/09/2024	02	No practical assigned			Ref 1 and 2
September	06/09/2024	12/09/2024		Ganesh Chaturthi			Ref 1 and 2
September	13/09/2024	14/09/2024		ii) Water insoluble solids (Phenol)			Ref 1 and 2
September	16/09/2024	21/09/2024	02	ii) Water insoluble solids (Neutral)			Ref 1 and 2
September	23/09/2024	28/09/2024	02	ii) Water insoluble solids (Neutral)			Ref 1 and 2
October	30/10/2024	05/10/2024	02	iii) Liquids: Water miscible (Neutral)			Ref 1 and 2
October	07/10/2024	12/10/2024	02	iii) Liquids: Water immiscible (base)			Ref 1 and 2
October	14/10/2024	19/10/2024	02	Practical exams			Ref 1 and 2

Reference Books:

1. Vogel, A.I., Tatchell, A.R., Furnis, B.S., Hannaford, A.J. & Smith, P.W.G., Textbook of Practical Organic Chemistry, Prentice Hall, 5th edition, 1996.
2. Mann, F.G. & Saunders, B.C. Practical Organic Chemistry Orient-Longman, 1960.
3. Pandey, O.P., Bajpai D. N. & Giri S. Practical Chemistry, Revised Edition, (For BSc. I, II, III Year Students of All Indian Universities) S. Chand Company Pvt Limited, 2014.
4. N. K. Vishnoi, Advanced Practical Organic Chemistry, third edition, 2010

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*** Assessment Rubrics**

Component	Max Marks
ISA 1	10
ISA 2	10
ISA 3	10
Semester End Exam	40
Total	60

*Best two ISA will be considered