

Practical Plan

Name of the college: Government College of Arts, Science & Commerce, Sankhali, Goa		
Name of Faculty: Dr. Ranjana Gupta	Subject: Basic Industrial Chemistry	
Paper code: CHC-211	Program: S.Y.BSc.	Division:
Academic year: 2025 - 2026	Semester: III	Total Practical/Labs: 30 hours
Credits: 1		
Course Objectives: - Apply the methods of synthesizing various dyes and pigments - Understand and evaluate the principles of colour theory and interaction of different pigments - Understand and implement the process carried out in paper industries - Comprehend the significance of pH and temperature measurement in industries		
Expected Course Outcome: At the end of the course, students will be able to: CO1: Synthesize and analyze various dyes, pigments, and chemical compounds. CO2: Apply principles of colour theory, prepare paper pulp, and measure pH of different formulations. CO3: Demonstrate proficiency in essential laboratory techniques, including temperature calibration, nutrient analysis, and corrosion rate determination		
Student Learning Outcome: At the end of the course students will be able: LO1: Demonstrate the ability to synthesize industrially useful dyes and pigments using appropriate chemical methods. LO2: prepare pulp from waste and recycled paper. LO3: analyze different essential nutrients in different fertilizers.		

Month	Practical/Labs Scheduled Date	No. of Practical /Labs planned	List of Experiments	Reference books
July	16-07-2025	1	Preparation of Prussian blue	[1-4]
	23-07-2025	1	Preparation of Chrome Yellow (PbCrO ₄)	[1-4]

	30-07-2025	1	Preparation of Azo dye	[1-4]
August	06-08-2025	1	Calibration of thermometer and measurement of temperature.	[1-4]
	20-08-2025	1	Qualitative analysis of essential nutrients in different fertilizers.	[2]
September	03-09-2025	1	To determine the rate of corrosion on a metallic plate in acidic medium.	[1-4]
	17-09-2025	1	Preparation of pulp from waste/recycled papers.	[1-4]
October	01-10-2025	1	To determine the pH of different pharmaceutical formulations.	[1-4]

References:

- [1] B.Sc. Chemistry Experiments by M. S. Hegde, Talent Development Centre, IISc, 2021.
- [2] Svehla, G., Vogel's Textbook of Macro and Semimicro Qualitative Inorganic Analysis, 7th edition Longman Group Limited, London. 2012.
- [3] Industrial Chemistry Vol. I & II by B. K. Sharma, 7th edition, Krishna Prakashan, Meerut, 2014.
- [4] Engineering Chemistry by Jain & Jain. 17th Edition, Dhanpat Rai Publishing company, New Delhi, 2015

* Assessment Rubrics	
Component	Max Marks
Practical	25