GOVERNMENT POLYTECHNIC, PURI
DEPARTMENT OF MATHS & SCIENCE

Discipline: **MECHANICAL ENGG.**	Semester: **1ST**	Name of the Teaching Faculty: **MRS. SUBHASHREE PRIYADARSHINI. LECTURER IN CHEMISTRY.**
Subject: **ENGG. CHEMISTRY PRACTICAL**	No. of days/per week class allotted: **04**	Semester From date: 25·10·2021 To Date: 31·01·2022 No. of Weeks: **15**
PRE-REQUISITE	Basic knowledge about Crystallization, titration, salt analysis, and preparation of gases.	
COURSE OUTCOMES	**CO1:** Understand the standard procedure for crystallization. **CO2:** able to identify a salt by help of chemical means. **CO3:** Understand the concepts of titration, acidimetry & alkalimetry. **CO4:** able to prepare CO_2 and NH_3 gas.	

Week	Class Day	Theory / Practical Topics	DELIVERY METHOD
1ST	1ST	Introduction	Whiteboard
	2ND	Preparation and study of physical and chemical properties of CO_2 gas- introduction	Whiteboard
	3RD	Theory	Whiteboard
	4TH	Practical	Whiteboard
2ND	1ST	Practical	Whiteboard
	2ND	Record checking	
	3RD	Introduction – Preparation and study of physical and chemical properties of NH_3 gas	Whiteboard
	4TH	Theory	Whiteboard
3RD	1ST	Practical	Whiteboard
	2ND	practical	Whiteboard
	3RD	practical, doubt clearing	Whiteboard
	4TH	Record checking	
4TH	1ST	Introduction- Crystallization of Copper sulphate from copper carbonate.	Whiteboard
	2ND	Theory	Whiteboard
	3RD	practical	Whiteboard
	4TH	practical	Whiteboard
5TH	1ST	practical	Whiteboard
	2ND	Record checking.	
	3RD	Introduction – Simple acid base titration.	Whiteboard
	4TH	Theory	Whiteboard
6TH	1ST	Theory – Acidimetry	Whiteboard
	2ND	Theory – Acidimetry	Whiteboard
	3RD	practical	Whiteboard
	4TH	practical	Lecture notes
7TH	1ST	Record checking	
	2ND	doubt clearing	Whiteboard
	3RD	Theory – Alkalimetry	Whiteboard

	4TH	Theory – Alkalimetry	Whiteboard
8TH	1ST	practical	Whiteboard
	2ND	practical	Whiteboard
	3RD	Record checking	
	4TH	doubt clearing	Whiteboard
9TH	1ST	Introduction- test for acid radicals	Whiteboard
	2ND	Introduction- test for acid radicals	Whiteboard
	3RD	Test for carbonate, sulphate	Whiteboard
	4TH	Test for chloride, nitrate	Whiteboard
10TH	1ST	Test for sulphate,	Whiteboard
	2ND	doubt clear	Whiteboard
	3RD	. Record checking	
	4TH	Record checking	
11TH	1ST	Introduction – test for basic radicals	Whiteboard
	2ND	Introduction – test for basic radicals	Whiteboard
	3RD	Test for ammonium, zinc,	Whiteboard
	4TH	Test for magnesium, aluminum,	Whiteboard
12TH	1ST	Test for calcium, sodium, potassium	Whiteboard
	2ND	Practical	Whiteboard
	3RD	Record checking	
	4TH	Record checking	
13TH	1ST	Introduction- test for unknown acid radicals	Whiteboard
	2ND	practical	Whiteboard
	3RD	practical	Whiteboard
	4TH	Practical, record checking	Whiteboard
14TH	1ST	Introduction- test for unknown basic radicals	Whiteboard
	2ND	practical	Whiteboard
	3RD	practical	Whiteboard
	4TH	Practical, record checking	Whiteboard
15TH	1ST	Introduction- test for unknown salts	Whiteboard
	2ND	practical	Whiteboard
	3RD	practical	Whiteboard
	4TH	Practical, record checking	

LEARNING RESOUCES:

1. Practical intermediate chemistry By: Dr. Bichitrananda Nanda
2. Elemental Experimental chemistry by: Dr. Y R Sharma, A K Das, Kalyani Publisher.

25/10/21

Sign. of Faculty concerned

25/10/21

Sign. of HOD i/c

Principal
G.P Puri