LESSON PLAN

ON

ENGINEERING CHEMISTRY

(PRACTICAL)

1ST SEMESTER

SESSION: 2022-23

PREPARED BY

SASWATI MISHRA

PTGF IN CHEMISTRY

GOVERNMENT POLYTECHNIC, PURI

	GOVERNMENT POLYTECHNIC, PURI **DEPARTMENT** **OF** **MATH & SCIENCE**		
Discipline : **Mechaniacl**	Semester : **1ST**	Name of the Teaching Faculty: **Saswati Mishra , PTGF in Chemistry**	
Subject: **ENGG CHEMISTRY LAB**	No. of days/per week class allotted: **04**	Semester From date : 25/10/2022 To Date: 31/01/2023 No. of Weeks: 15	
PRE-REQUISITE	Basic knowledge about crystallization, and preparation of gases		
COURSE OUTCOMES	**CO1**: Understand the standard procedure for crystallization **CO2:** Able to identify a salt by the help of chemicals means. **CO3:** Understand the concept of titration, acidimetry and crystallization. **CO4:** Able to prepare CO_2 and NH_3 gas		
Week	**Class Day**	**Practical**	**DELIVERY METHOD**
1ST	1ST	Introduction	White board
	2ND	Preparation and study of physical and chemical properties of CO_2 gas-introduction	White board
	3RD	Theory	White board
	4TH	Practical	White board
2ND	1ST	Practical	White board
	2ND	Record checking	
	3RD	Introduction – Preparation and study of physical and chemical properties of NH_3 gas	White board
	4TH	Theory	White board
3RD	1ST	Practicals	White board
	2ND	Practicals	White board
	3RD	Practicals, doubt clearing	White board
	4TH	Record checking	
4TH	1ST	Introduction- Crystallization of Copper sulphate from copper carbonate.	White board
	2ND	Theory	White board
	3RD	Practicals	White board
	4TH	Practicals	White board
5TH	1ST	Practicals	White board
	2ND	Record checking.	
	3RD	Introduction – Simple acid base titration.	White board
	4TH	Theory	White board
6TH	1ST	Theory – Acidimetry	White board
	2ND	Theory – Acidimetry	White board
	3RD	Practicals	White board
	4TH	Practicals	White board
7TH	1ST	Record checking	
	2ND	doubt clearing	White board

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

Learning Resouces:

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

Signature of concerned lecturer
(PTGT in chemistry)

26/10/22
(P.P. Rout)
Signature of the H.O.D

Signature of Principal