

# KIITPOLYTECHNIC, BHUBANESWAR

## LESSONPLAN

Session(2022-2023)

<b>Discipline:</b> Mechanical/Metallurgy/ Civil	<b>Semester: 2<sup>nd</sup></b> <b>Summer/2023</b>	<b>Name of the faculty:</b> <b>Dr.Ranjita.P.Biswal</b> <b>Email</b> <a href="mailto:Id:ranjita@kp.kiit.ac.in">Id:ranjita@kp.kiit.ac.in</a>
<b>Subject: Engineering</b> <b>Chemistry Practical</b> <b>(Pr-2b)</b>	<b>No. of</b> <b>Days/week:02(2perio</b> <b>ds /Day)</b> <b>Experiments will be</b> <b>performed in small</b> <b>groups</b> <b>Of 5to6students</b>	<b>Start Date: 20/03/2023</b> <b>EndDate:27/06/2023</b>

Week	ClassDay	PracticalTopics
1 <sup>st</sup>	1st	<ul style="list-style-type: none"><li>Rules,regulation,Distribution of marks, Lab needs such as manual,roughrecord,apron.</li><li>Fundamentals,brief idea about experiments,AnalysisofAcidradicals(<math>\text{CO}_3^{2-}</math>, <math>\text{S}^{2-}</math>, <math>\text{Cl}^-</math>, <math>\text{NO}_3^-</math>, <math>\text{SO}_4^{2-}</math>)</li></ul>
	2nd	<ul style="list-style-type: none"><li>Rules,regulation,Distributionofmarks,Labneedssuchasmanual,rough record,apron</li><li>Fundamentals,brief idea about experiments,AnalysisofAcidradicals(<math>\text{CO}_3^{2-}</math>, <math>\text{S}^{2-}</math>, <math>\text{Cl}^-</math>, <math>\text{NO}_3^-</math>, <math>\text{SO}_4^{2-}</math>)</li></ul>
2nd	1st	<ul style="list-style-type: none"><li>Demonstration of Analysis of Acid radicals(<math>\text{CO}_3^{2-}</math>, <math>\text{S}^{2-}</math>, <math>\text{Cl}^-</math>, <math>\text{NO}_3^-</math>, <math>\text{SO}_4^{2-}</math>)</li></ul>
	2nd	<ul style="list-style-type: none"><li>Demonstration of Analysis of Acid radicals(<math>\text{CO}_3^{2-}</math>, <math>\text{S}^{2-}</math>, <math>\text{Cl}^-</math>, <math>\text{NO}_3^-</math>, <math>\text{SO}_4^{2-}</math>)</li></ul>
3rd	1st	<ul style="list-style-type: none"><li>Analysis of Acidradicals(<math>\text{CO}_3^{2-}</math>, <math>\text{S}^{2-}</math>, <math>\text{Cl}^-</math>, <math>\text{NO}_3^-</math>, <math>\text{SO}_4^{2-}</math>) done by the student</li></ul>
	2nd	<ul style="list-style-type: none"><li>Repeat Class/ Defaulter</li></ul>

4th	1st	<ul style="list-style-type: none"> <li>Detection of acid radical, demonstration</li> </ul>
	2nd	<ul style="list-style-type: none"> <li>Detection of acid radical, demonstration</li> </ul>
5th	1st	<ul style="list-style-type: none"> <li>Analysis of the basic radical through drytest(<math>\text{Cu}^{2+}</math>, <math>\text{Al}^{3+}</math>, <math>\text{Zn}^{2+}</math>, <math>\text{Ca}^{2+}</math>, <math>\text{NH}_4^+</math>, <math>\text{Mg}^{2+}</math>, <math>\text{Na}^+</math>, <math>\text{K}^+</math>)</li> </ul>
	2nd	<ul style="list-style-type: none"> <li>Analysis of the basic radical through drytest(<math>\text{Cu}^{2+}</math>, <math>\text{Al}^{3+}</math>, <math>\text{Zn}^{2+}</math>, <math>\text{Ca}^{2+}</math>, <math>\text{NH}_4^+</math>, <math>\text{Mg}^{2+}</math>, <math>\text{Na}^+</math>, <math>\text{K}^+</math>)</li> </ul>
6th	1st	<ul style="list-style-type: none"> <li>Analysis of the basic radicals through wet test</li> </ul>
	2nd	<ul style="list-style-type: none"> <li>Analysis of the basic radicals through wet test</li> </ul>
7th	1st	<ul style="list-style-type: none"> <li>Repeat Class</li> </ul>
	2nd	<ul style="list-style-type: none"> <li>Identification of salt, Demonstration and done by the student</li> </ul>
8th	1st	<ul style="list-style-type: none"> <li>Identification of salt, Demonstration and done by the student</li> </ul>
	2nd	<ul style="list-style-type: none"> <li>Acid-Base titration, Demonstration, done by the students</li> </ul>
9th	1st	<ul style="list-style-type: none"> <li>Acid-Base titration, Demonstration, done by the students</li> </ul>
	2nd	<ul style="list-style-type: none"> <li><math>\text{CO}_2</math> gas preparation &amp; properties, Demonstration and done by the student</li> </ul>
10th	1st	<ul style="list-style-type: none"> <li><math>\text{CO}_2</math> gas preparation &amp; properties, Demonstration and done by the student</li> </ul>
11th	2nd	<ul style="list-style-type: none"> <li><math>\text{NH}_3</math> gas preparation &amp; properties, Demonstration and done by the student</li> <li>Crystallization of copper sulfate from copper carbonate</li> </ul>
12th	1st	<ul style="list-style-type: none"> <li><math>\text{NH}_3</math> gas preparation &amp; properties, Demonstration and done by the student</li> <li>Crystallization of copper sulfate from copper carbonate</li> </ul>
	2nd	Repeat Class for experiment 1, 2 & 3
13th	1st	Repeat Class for experiment 4, 5 & 6
	2nd	Repeat Class for experiment 7, 8 & 9
14th	1st	Practice Test
	2nd	Practice Test