

Discipline:Math & Science Branch-Civil Engg.	Semester: 1 st and 2 nd	Name of the Teaching Faculty: Sushreeta Behera (Lec. In chemistry) Nigamananda Nayak (Lab Instructor)
Subject: Engg. Chemistry Practical	No. of Days/week Class Allotted:60	
week	Class	Practical Topics
1 st	1 st	Safety instructions to the students.
	2 nd	Precautions to be taken during practical classes.
2 nd	1 st	Acquaintance of the students with the laboratory apparatus.
	2 nd	Acquaintance of the students with the laboratory chemicals.
3 rd	1 st	Bunsen burner (Different parts and their functions)
	2 nd	Luminous and non-luminous flame
4 th	1 st	Preparation of CO ₂ gas and study its properties. (Theory)
	2 nd	Preparation of CO ₂ gas and study its properties. (Practical)
5 th	1 st	Preparation of NH ₃ gas and study its properties. (Theory)
	2 nd	Preparation of NH ₃ gas and study its properties. (Practical)
6 th	1 st	Types of solutions. General process of crystallization
	2 nd	Crystallization of Copper sulphate from copper carbonate.(Theory)
7 th	1 st	Crystallization of Copper sulphate from copper carbonate.(Practical)
	2 nd	Volumetric Analysis, Acid- Base indicators
8 th	1 st	Procedure of acid-base titrations (Acidimetry)
	2 nd	Acid-base titrations (Acidimetry)- Practical
9 th	1 st	Procedure of acid-base titrations (Alkalimetry)
	2 nd	Acid-base titrations (Alkalimetry)-Practical
10 th	1 st	Systematic Qualitative analysis (theory)
	2 nd	Systematic Qualitative analysis (theory)
11 th	1 st	Tests for acid radicals (Known): (i) Carbonate, (ii) Sulphide,
	2 nd	Tests for acid radicals (Known): (iii) Chloride, (iv) Nitrate and (v) Sulphate.
12 th	1 st	Tests for basic radicals (Known) (i)Aluminium (ii)Zinc
	2 nd	Testforbasic radicals (known) (i) Calcium ion (ii) sodium ion (iii) potassium ion
13 th	1 st	Test for unknown acid radical
	2 nd	Test for unknown basic radical
14 th	1 st	Test for unknown salt (composed of one basic radical and one acid radical)
	2 nd	Test for unknown salt (composed of one basic radical and one acid radical)