

**JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA**

**DEPARTMENT OF MATHEMATICS & SCIENCE**

**LESSON PLAN**

**SESSION: 2023-24**

**SUBJECT- ENGINEERING CHEMISTRY PRACTICAL**

**NAME OF THE FACULTY- JAGANNATH ORAM, SULAGNA DAS**

**BRANCH- ELECTRICAL, ETC, IT**

**SEMESTER-1ST Semester**

**SESSION: WINTER, SECTION: E1, E2, E3, E4, T1, T2**

Sl.No.	WEEK	TIME (MIN)	LECTURE NO.	Experiments to be performed
1	1 <sup>ST</sup>	110	1	Introduction to Chemistry lab regarding record maintenance, safety rules and guidelines.
		110	2	EXPERIMENT- 1 (Preparation and study of physical and chemical properties CO <sub>2</sub> gas) Introduction of the apparatus & chemical required and demonstration of Experiment
2	2 <sup>ND</sup>	110	3	Experiment performed by students
		110	4	Record writing by the students, record checking and viva voce.
3	3 <sup>RD</sup>	110	5	EXPERIMENT- 2 (Preparation and study of physical and chemical properties NH <sub>3</sub> gas..) Introduction of the apparatus & chemical required and demonstration of Experiment
		110	6	Experiment performed by students
4	4 <sup>TH</sup>	110	7	Record writing by the students, record checking and viva voce.
		110	8	EXPERIMENT- 3 (Crystallization of Copper sulphate from copper carbonate) Introduction apparatus & chemical required and demonstration of Experiment
5	5 <sup>TH</sup>	110	9	Experiment performed by students
		110	10	Record writing by the students, record checking and viva voce.

6	6 <sup>TH</sup>	110	11	EXPERIMENT- 4(i) (Acidmetry titration) Introduction apparatus & chemical required and demonstration of Experiment
		110	12	Experiment, Observation and calculation by students.
7	7 <sup>TH</sup>	110	13	Record writing by the students, record checking and viva voce.
		110	14	EXPERIMENT- 4(ii) (Alkalimetry titration) Introduction apparatus & chemical required and demonstration of Experiment
8	8 <sup>TH</sup>	110	15	Experiment , Observation and calculation by students
		110	16	Record writing by the students, record checking and viva voce.
9	9 <sup>TH</sup>	110	17	EXPERIMENT- 5(Tests for acid radicals (Known): (i) Carbonate, (ii) Sulphide, (iii) Chloride,) (iv) Nitrate and (v) Sulphate Introduction to acid radical and demonstration of Experiment.
		110	18	Experiment performed by students
10	10 <sup>TH</sup>	110	19	Record writing by the students, record checking and viva voce.
		110	20	EXPERIMENT- 6(Test for unknown Acid radicals) Preliminary & basic idea to be given to find out unknown acid radical
11	11 <sup>TH</sup>	110	21	Experiment performed by students
		110	22	Record writing by the students, record checking and viva voce
12	12 <sup>TH</sup>	110	23	EXPERIMENT- 7 (Test for Basic radicals (Known): (i) Ammonium (ii) Zinc (iii) Magnesium (iv) Aluminium (v) Calcium (vi) Sodium (vii) potassium Introduction to basic radical and demonstration of Experiment

		110	24	Experiment performed by students
13	13 <sup>TH</sup>	110	25	EXPERIMENT- 8 (Test for unknown basic radicals) Preliminary & basic idea to be given to find out unknown basic radical
		110	26	Experiment performed by students
14	14 <sup>TH</sup>	110	27	Record checking and viva voce.
		110	28	EXPERIMENT- 9 Test for unknown salt (composed of one basic radical and one acid radical) Preliminary & basic idea to be given to find out unknown basic radical and acid radical
15	15 <sup>th</sup>	110	29	Experiment performed by students
		110	30	Record checking and viva voce.

*[Signature]*  
03/08/23

Signature of faculty Member:

*[Signature]*  
03/08/23

Counter signature of H.O.D:

**Sr. Lect. (M/Sc)**

**Engg. School  
Jharsuguda**

JES JHARSUGUDA