

**JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA****DEPARTMENT OF MATHEMATICS & SCIENCE****LESSON PLAN****SESSION: 2022-23**


SUBJECT- ENGINEERING CHEMISTRY PRACTICAL  
NAME OF THE FACULTY- JAGANNATH ORAM, SULAGNA DAS  
SESSION: SUMMER, SECTION: C1,C2,M1,M2,M3,M4

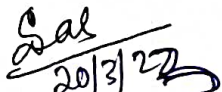
BRANCH- CIVIL, MECHANICAL  
SEMESTER-2<sup>ND</sup> Semester

| 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)<br>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..)<br>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)<br>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.   |

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|----|------------------|-----|----|---|
| 6  | 6 <sup>TH</sup>  | 110 | 11 | EXPERIMENT- 4(i) (Acidmetry titration)<br>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)<br>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):<br>(i) Carbonate,<br>(ii) Sulphide,<br>(iii) Chloride,)<br>(iv) Nitrate and<br>(v) Sulphate<br>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)<br>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):<br>(i) Ammonium<br>(ii) Zinc<br>(iii) Magnesium<br>(iv) Aluminium<br>(v) Calcium<br>(vi) Sodium   |

|    |                  |     |    |   |
|----|------------------|-----|----|---|
|    |                  |     |    | (vii) potassium<br>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)<br>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)<br>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.  |

  
 20/3/22  
 Signature of faculty Member:

  
 20/3/22  
 Counter signature (S.O.D):  
 Sr. Lect. (M.Sc.)  
 Engg. School  
Jharsuguda