# UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA
## Academic lesson plan for summer semester - 2023

Name of the teaching faculty: **Arabinda Pradhan**  Discipline / Dept.: **EE**

Semester: **4th**  Subject (Practical): **EML-I**

No. of periods per week: **6**  Total Periods: **90**

Semester Exam: **50**  Class Test: **25**

Total Marks: **75**

| Week | Period | UNIT/CHAPTER | Topic to be covered |
|---|---|---|---|
| 1ST | 1st | EXPERIMENT 1(A) | . Identification of different terminals of a DC machine by test lamp method |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 1(B) | Identification of different terminals of a DC machine by multimeter method. |
|  | 5th |  |  |
|  | 6th |  |  |
| 2ND | 1st | EXPERIMENT 1(c) | Measurement of insulation resistance of a DC motor by megger. |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 2 | Dimensional and material study of various parts of a DC machine. |
|  | 5th |  |  |
|  | 6th |  |  |
| 3RD | 1st | EXPERIMENT 3 | Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph. |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 4 | Plot External Characteristics of a DC shunt generator at constant speed |
|  | 5th |  |  |
|  | 6th |  |  |
| 4TH | 1st | EXPERIMENT 5 | Study of Three point starter, connect and run a DC shunt motor & measure the no load current. |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 6 | Study of Four point starter, connect and run a DC compound motor & measure no load current |
|  | 5th |  |  |
|  | 6th |  |  |
| 5TH | 1st | EXPERIMENT 7(A) | Control the speed of a DC shunt motor by field flux control method. |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT (B) | Control the speed of a DC shunt motor by armature voltage control method. |
|  | 5th |  |  |
|  | 6th |  |  |
| 6TH | 1st | EXPERIMENT 8 | Determine the armature current vs. speed characteristic of a DC motor |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 9 | Determine the efficiency of a DC machine by brake test method |
|  | 5th |  |  |
|  | 6th |  |  |
| 7TH | 1st | EXPERIMENT 10 | Identification of terminals, determination of voltage transformation ratio of a single phase transformer. |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 11(A) | Perform Open Circuit Test of a single phase transformer. |
|  | 5th |  |  |
|  | 6th |  |  |
| 8TH | 1st | EXPERIMENT 11(B) | Perform Short Circuit test of a single phase transformer. |
|  | 2nd |  |  |
|  | 3rd |  |  |
|  | 4th | EXPERIMENT 12(A) | Determine the voltage regulation of a single phase |