

**ACADEMIC LESSON PLAN OF SUMMER 2024**

Discipline <b>ELECTRICAL ENGG.</b>	Semester: -4 <sup>th</sup> <b>(Sec A,Grp 2)</b>	Name of the Teaching Faculty: - <b>Amit Kumar Bisoyi and Sangeeta Kumari Patra</b>
Subject: - <b>Electrical Machine Lab-I</b>	No of Days/per Week Class Allotted: <b>2p/week</b>	Semester From: - 16 <sup>th</sup> January 2024 to 26 <sup>th</sup> April 2024 No. of weeks:15 weeks
<b>Week</b>	<b>Class Day</b>	<b>Practical Topics</b>
1 <sup>st</sup>	1 <sup>st</sup>	1. Identification of different terminals of a DC machine by test lamp method and multi-meter method & to measure insulation resistance by megger.(contd.)
	2 <sup>nd</sup>	1. Identification of different terminals of a DC machine by test lamp method and multi-meter method & to measure insulation resistance by megger.
2 <sup>nd</sup>	1 <sup>st</sup>	2. Dimensional and material study of various parts of a DC machine.(contd.)
	2 <sup>nd</sup>	2. Dimensional and material study of various parts of a DC machine.
3 <sup>rd</sup>	1 <sup>st</sup>	3.Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.(contd.)
	2 <sup>nd</sup>	3.Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
4 <sup>th</sup>	1 <sup>st</sup>	4.Plot External Characteristics of a DC shunt generator at constant speed.
	2 <sup>nd</sup>	5. Study of Three point starter, connect and run a DC shunt motor & measure the no load current.(contd.)
5 <sup>th</sup>	1 <sup>st</sup>	5. Study of Three point starter, connect and run a DC shunt motor & measure the no load current.
	2 <sup>nd</sup>	6. Study of Four point starter, connect and run a DC compound motor & measure no load current.
6 <sup>th</sup>	1 <sup>st</sup>	6. Study of Four point starter, connect and run a DC compound motor & measure no load current.
	2 <sup>nd</sup>	7. Control the speed of a DC shunt motor by field flux control method. (Contd.)
7 <sup>th</sup>	1 <sup>st</sup>	7. Control the speed of a DC shunt motor by field flux control method.
	2 <sup>nd</sup>	8.Control the speed of a DC shunt motor by armature voltage control method. (Contd.)
8 <sup>th</sup>	1 <sup>st</sup>	8.Control the speed of a DC shunt motor by armature voltage control method. (Contd.)

	2 <sup>nd</sup>	8. Determine the armature current vs. speed characteristic of a DC motor(Contd.)
9 <sup>th</sup>	1 <sup>st</sup>	9. Determine the efficiency of a DC machine by brake test method. (Contd.)
	2 <sup>nd</sup>	9. Determine the efficiency of a DC machine by brake test method.
10 <sup>th</sup>	1 <sup>st</sup>	10. Identification of terminals, determination of voltage transformation ratio of a Single Phase Transformer(Contd.)
	2 <sup>nd</sup>	10. Identification of terminals, determination of voltage transformation ratio of a Single Phase Transformer
11 <sup>th</sup>	1 <sup>st</sup>	10. Identification of terminals, determination of voltage transformation ratio of a Single Phase Transformer
	2 <sup>nd</sup>	11. Perform OC Test of a Single Phase Transformer.(Contd.)
12 <sup>th</sup>	1 <sup>st</sup>	11. Perform SC test of a Single Phase Transformer.
	2 <sup>nd</sup>	12. Determine the voltage regulation of a Single Phase Transformer at different loads. (Contd.)
13 <sup>th</sup>	1 <sup>st</sup>	12. Determine the voltage regulation of a Single Phase Transformer at different loads.
	2 <sup>nd</sup>	12. Determine the voltage regulation of a Single Phase Transformer at different loads.
14 <sup>th</sup>	1 <sup>st</sup>	Revision Class
	2 <sup>nd</sup>	Revision Class
15 <sup>th</sup>	1 <sup>st</sup>	Revision Class
	2 <sup>nd</sup>	Revision Class

Anil Kumar Prisaji

Signature of Teaching Faculty