

**UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA**  
**Department of Electrical engineering**

**Academic Lesson Plan for 5<sup>th</sup> Semester - 2022 (Winter)**

**Subject: Pr.1 ELECTRICAL MACHINE LAB-II**

**Name of the teaching faculty- Arabinda Pradhan, Sr.Lecturer(ELECTRICAL)**

<b>SEMESTER FROM</b> <b>DATE:15/09/2022 TO</b> <b>DATE:22/12/2022</b>	<b>No. of periods per week: 6</b> <b>NO.OF WEEKS:15</b> <b>Total periods: 90</b>	<b>Sessional Exam. : 25 Marks</b> <b>End Semester Exam.: 50 Marks</b> <b>Total Marks: 75 Marks</b>
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WEEK	CLASS DAY	UNIT	THEORY/PRACTICAL TOPICS	REMARK	
1ST	1ST	EXPERIMENT-1	Study of (Manual and Semi automatic) Direct on Line starter, Star-Delta starter, connection and running a 3-phase Induction motor and measurement of starting current.		
	2ND				
	3RD				
	4TH	4TH	EXPERIMENT-1	Study of (Manual and Semi automatic) Direct on Line starter, Star-Delta starter, connection and running a 3-phase Induction motor and measurement of starting current.	
		5TH			
		6TH			
2ND	1ST	EXPERIMENT-2	Study of (Manual and Semi automatic) Auto transformer starter and rotor resistance starter connection and running a 3-phase induction motor and measurement of starting current.		
	2ND				
	3RD				
	4TH	4TH	EXPERIMENT-2	Study of (Manual and Semi automatic) Auto transformer starter and rotor resistance starter connection and running a 3-phase induction motor and measurement of starting current.	
		5TH			
		6TH			
3RD	1ST	EXPERIMENT-3	Study and Practice of connection & Reverse the direction of rotation of Three Phase Induction motor.		
	2ND				
	3RD				
	4TH	4TH	EXPERIMENT-3	Study and Practice of connection & Reverse the direction of rotation of Three Phase Induction motor.	
		5 <sup>TH</sup>			
		6TH			
4TH	1ST	EXPERIMENT-4	Study and Practice of connection & Reverse the direction of rotation of Single Phase Induction motor.		
	2ND				
	3RD				
	4TH	4TH	EXPERIMENT-4	Study and Practice of connection & Reverse the direction of rotation of Single Phase Induction motor.	
		5TH			
		6TH			
5TH	1ST	EXPERIMENT-5	Heat run test of 3-phase transformer.		
	2ND				
	3RD				
	4TH	4TH	EXPERIMENT-5	Heat run test of 3-phase transformer.	
		5TH			
		6TH			
6TH	1ST	EXPERIMENT-6	OC and SC test of alternator and determination of regulation by synchronous impedance method.		
	2ND				
	3RD				

	4TH	EXPERIMENT-6	OC and SC test of alternator and determination of regulation by synchronous impedance method.		
	5TH				
	6TH				
7TH	1ST	EXPERIMENT-7	Determination of regulation of alternator by direct loading.		
	2ND				
	3RD				
	4TH	EXPERIMENT-7	Determination of regulation of alternator by direct loading.		
	5TH				
	6TH				
8TH	1ST	EXPERIMENT-8	Parallel operation of two alternators and study load sharing.		
	2ND				
	3RD				
	4TH	EXPERIMENT-8	Parallel operation of two alternators and study load sharing.		
	5TH				
	6TH				
9TH	1ST	EXPERIMENT-9	Measurement of power of a 3-phase Load using two wattmeter method and verification of the result using one 3-phase wattmeter.		
	2ND				
	3RD				
	4TH	EXPERIMENT-9	Measurement of power of a 3-phase Load using two wattmeter method and verification of the result using one 3-phase wattmeter.		
	5TH				
	6TH				
10TH	1ST	EXPERIMENT-10	Connection of 3-phase energy meter to a 3-phase load.		
	2ND				
	3RD				
	4TH	EXPERIMENT-10	Connection of 3-phase energy meter to a 3-phase load.		
	5TH				
	6TH				
11TH	1ST	EXPERIMENT-11	Study of an O.C.B		
	2ND				
	3RD				
	4TH	EXPERIMENT-11	Study of an O.C.B		
	5TH				
	6TH				
12TH	1ST	EXPERIMENT-12	Study of induction type over current / reverse power relay.		
	2ND				
	3RD				
	4TH	EXPERIMENT-12	Study of induction type over current / reverse power relay.		
	5TH				
	6TH				
13TH	1ST	EXPERIMENT-13	Study of Buchholz's relay.		
	2ND				
	3RD				
	4TH	EXPERIMENT-13	Study of Buchholz's relay.		
	5TH				
	6TH				
14TH	1ST	EXPERIMENT-14	Study of an earth fault relay.		
	2ND				

	3RD		Study of an earth fault relay.	
	4TH	EXPERIMENT-14	Study of an earth fault relay.	
	5TH			
	6TH			
15TH	1ST	EXPERIMENT	Sessional	
	2ND			
	3RD			
15TH	4TH	EXPERIMENT	sessional	
	5TH			
	6TH			