



SYNERGY SCHOOL OF ENGINEERING
DEPARTMENT OF ELECTRICAL ENGINEERING

Discipline: Electrical Engineering	Semester: - 3 rd Sem	Name of the teaching faculty: MR. AMARENDRA BEHERA, ABINASH JENA		
Subject: - DC MACHINE & TRANSFORMER LAB	No. of Days/week class Allotted: 4	No. of weeks: -15 SESSION-2026-27 WINTER		
No. of week	No. of lab class	Topic to be Taught	DATE OF DELIVERY	
			G1	G2
1 ST	1 st	Dismantle a DC machine.		
	2 nd	Dismantle a DC machine.		
2 ND	1 st	Dismantle a DC machine.		
	2 nd	Reverse the direction of rotation of the DC shunt motor.		
3 RD	1 st	Reverse the direction of rotation of the DC shunt motor.		
	2 nd	Reverse the direction of rotation of the DC shunt motor.		
4 TH	1 st	Control the speed of DC shunt motor by field flux and armature voltage control methods.		
	2 nd	Control the speed of DC shunt motor by field flux and armature voltage control methods.		
5 TH	1 st	Control the speed of DC shunt motor by field flux and armature voltage control methods.		
	2 nd	Perform the brake test on DC series motor.		
6 TH	1 st	Perform the brake test on DC series motor.		
	2 nd	Perform the brake test on DC series motor.		
7 TH	1 st	Check the functioning of single phase transformer		
	2 nd	Check the functioning of single phase transformer		
8 TH	1 st	Check the functioning of single phase transformer		
	2 nd	Determine regulation and efficiency of single phase transformer by direct loading		
9 TH	1 st	Determine regulation and efficiency of single phase transformer by direct loading		
	2 nd	Determine regulation and efficiency of single phase transformer by direct loading		
10 TH	1 st	Perform open circuit and short circuit test on single phase transformer to determine equivalent circuit constants, voltage regulation and efficiency		
	2 nd	Perform open circuit and short circuit test on single phase transformer to determine equivalent circuit constants, voltage regulation and efficiency		
11 TH	1 st	Perform open circuit and short circuit test on single phase transformer to determine equivalent circuit constants, voltage regulation and efficiency		
	2 nd	Perform parallel operation of two single-phase transformers to determine the load current sharing.		
12 TH	1 st	Perform parallel operation of two single-phase transformers to determine the load current sharing.		
	2 nd	Perform parallel operation of two single-phase transformers to determine the load current sharing.		
13 TH	1 st	Perform polarity test on a single-phase transformer whose polarity markings are masked.		
	2 nd	Perform polarity test on a single-phase transformer whose polarity markings are masked.		

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20/06/26

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14 th	1 st	Perform polarity test on a single-phase transformer whose polarity markings are masked.		
	2 nd	Perform phasing out test on a three-phase transformer whose phase markings are masked.		
15 th	1 st	Perform phasing out test on a three-phase transformer whose phase markings are masked.		
	2 nd	Perform phasing out test on a three-phase transformer whose phase markings are masked.		

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20/6/26

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Prepared by 20/06/26

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20/06/2026
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