

Subject	Days/Per Week	Semester	Name of the teaching faculty
Electrical	4th		Pradyumna Dash
EC-1	06		Semester from: 10-3-2022 to 10-06-2022 No. of Weeks: 14
Week	Class Day	Theory / Practical Topics	
	1st		
	2nd		
07.03.22	3rd		
	4th	DC Generator: Operating principle	
12.03.22	5th	<ul style="list-style-type: none"> • Constructional features 	
	6th	<ul style="list-style-type: none"> • Armature Winding, pitch 	
	1st	<ul style="list-style-type: none"> • Simple lap winding of wave winding Dummy Co 	
14.03.22	2nd	<ul style="list-style-type: none"> • Different type DC machines. 	
	3rd	<ul style="list-style-type: none"> • Shunt DC Generator 	
19.03.22	4th	<ul style="list-style-type: none"> • Series DC Generator 	
	5th	← Dola Purnima →	
	6th	← Holi →	
	1st	<ul style="list-style-type: none"> • Compound DC Generator. 	
21.03.22	2nd	<ul style="list-style-type: none"> • Derivation of EMF Equation 	
	3rd	<ul style="list-style-type: none"> • Solved problems 	
26.03.22	4th	<ul style="list-style-type: none"> • losses of efficiency, condition for max^m efficiency 	
	5th	<ul style="list-style-type: none"> • Armature Reaction 	
	6th	<ul style="list-style-type: none"> • Commutation & Methods for Improve Commutation 	
	1st	<ul style="list-style-type: none"> • Interpoles & Compensating Winding 	
28.03.22	2nd	<ul style="list-style-type: none"> • Characteristics of DC Generator 	
	3rd	<ul style="list-style-type: none"> • Application of Different DC Generators 	
2.04.22	4th	<ul style="list-style-type: none"> • Concept of Critical Resistance & Speed 	
	5th	← Utkal Divas →	
	6th	<ul style="list-style-type: none"> • Condition of Build-up of emf of DC Generator 	
	1st	<ul style="list-style-type: none"> • Parallel Operation of DC Generators 	
4.4.22	2nd	<ul style="list-style-type: none"> • Use of DC Generators. 	
	3rd	DC Motors: Basic working Principle	
9.4.22	4th	<ul style="list-style-type: none"> • Significance of Back-emf 	
	5th	<ul style="list-style-type: none"> • Voltage Equation of DC Motor 	
	6th	<ul style="list-style-type: none"> • Condition for maximum power (problems solve) 	

Week	class Day	Theory / practical Topics
11. 4. 22	1st	• Torque Equation Derivation (problem solve)
	2nd	• Characteristics of Shunt, Series, Compound motors
	3rd	• Different Starting Methods.
	4th	← Maha Visruba Sankranti →
16. 4. 22	5th	← Good Friday →
	6th	• Speed Control of DC shunt Motors
18. 4. 22	1st	• Speed Control of DC Series Motor
	2nd	• Efficiency By Break Test
	3rd	• Efficiency of Swinburn's Test
23. 4. 22	4th	• Causes of Efficiency (Problem Solved)
	5th	• Power Stages
	6th	• Use of DC motor.
	1st	Single phase transformer: Working principle.
25. 4. 22	2nd	• Constructional features.
	3rd	• Arrangement of Core and Winding
30. 4. 22	4th	• Transformer Accessories
	5th	• Types of Cooling Methods.
	6th	• Procedures of Maintenance.
	1st	• Emf Equation of Transformer.
2. 5. 22	2nd	← Id - UI - fitre →
	3rd	• Ideal Transformer Voltage Transformation Ratio
7. 5. 22	4th	• Transformer at NO load of phasor Diagram.
	5th	• Transformer at ON load of phasor Diagram.
	6th	• Equivalent Resistance & Reactance, Impedance.
9. 5. 22	1st	• Leading power factor & lagging power factor.
	2nd	• Equivalent Circuit Diagram.
	3rd	• Problem Solve.
14. 5. 22	4th	• Voltage Drop Calculation.
	5th	• Regulation of Transformer.
	6th	• Different losses of Transformer.

Week	Class Day	Theory / practical Topics.
	1st	← Buddha Purnima →
16.5.22	2nd	• Open circuit & short circuit Test
	3rd	• Numerical problem Solve.
21.5.22	4th	• Efficiency at different loads
	5th	• Problem solved.
	6th	• All Day efficiency
	1st	• Load Corresponding to Max ^m efficiency
	2nd	• Parallel Operation
13.5.22	3rd	• Auto Transformer: Constructional features.
	4th	• Working principle.
28.5.22	5th	• Comparison between Auto Transformer
	6th	Two Winding Transformer.
	1st	← Sabitri Amabarya →
30.5.22	2nd	• Use of Auto Transformer.
	3rd	• ON load Tap changer
4.6.22	4th	• OFF load Tap changer.
	5th	• Instrument transformer: Current Transformer
	6th	• Potential Transformer.
	1st	• Ratio Error
6.6.22	2nd	• Phase angle of Burden
	3rd	• Use of CT & PT
11.06.22	4th	• Revision
	5th	• Revision
	6th	

Verified
 [Signature]
 10/03/2022