
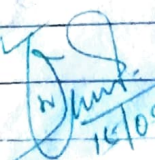


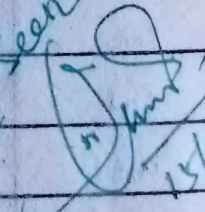
Discipline	Semester	Name of the Teaching faculty
Electrical	5th	Samir Kumar Panda
Subject	No. of Days	Semester from: 15.9.2022 to 22.12.2022
Energy Conversion-1	Weeks/classes	No. of Weeks: 15
	Allotted	
	05	
Weeks	Class day	Theory
	1st	
12.9.2022	2nd	• Alternator: Types of alternator and constructional features
to	3rd	
17.9.2022	4th	
	5th	• Basic working principle of alternator. ✓
← Biswakarma Puja →		
	1st	• Terminology in armature winding expression for factors
19.9.2022	2nd	• Explain Harmonic, causes, impact of windings
to	3rd	• EMF Equation of alternator (numerical problem)
24.9.2022	4th	• EMF Equation of alternator (numerical problem)
	5th	• Explain Armature reaction & its effect of load.
	1st	• Vector diagram of loaded alternator
26.9.2022	2nd	• Testing of alternators, Open circuit test
to	3rd	• Testing of alternators, Short circuit test
1.10.2022	4th	• Voltage Regulation by direct loading, syn. impedance
	5th	• Parallel operation by using synchro-scope ✓
	1st	
3.10.2022	2nd	Dussehra Puja holidays
to	3rd	
8.10.2022	4th	
	5th	
	1st	• Distribution of load by parallel connected alternator
10.10.2022	2nd	• Synchronous Motor: Constructional features
to	3rd	• Principles of operation & load angle
15.10.2022	4th	• Develop torque and power developed
	5th	• Effect of varying load with constant excitation
	1st	• Effect of varying excitation with constant load
17.10.2022	2nd	• Power angle characteristics cylindrical rotor
to	3rd	• Effect of excitation of armature current and PF
22.10.2022	4th	• Hunting in Synchronous Motor (Cont.)
	5th	• Hunting in synchronous motors. ✓


 15/10/22

Weeks	class day	Theory
	1st	← Diwali →
24.10.2022	2nd	function of Damper bars in generators
to	3rd	• Methods of starting of Synchronous Motor
29.10.2022	4th	• Application of Synchronous motor. ✓
	5th	• 3 phase IM: Rotating magnetic field, Construction
	1st	• Working principle of 3 phase induction motor
30.10.2022	2nd	• Define slip and Relation between Rotor parameter
to	3rd	• Expression for torque at starting and running
5.11.2022	4th	• Torque - Slip characteristics
	5th	• Relation between full load & starting torque
	1st	← last madday of Karthika →
7.11.2022	2nd	• Relation between Rotor (slip torque and gross torque)
to	3rd	• Methods of starting (cont...)
12.11.2022	4th	• Methods of starting ✓
	5th	• Speed Control by Voltage Control, Rotor Resistance
	1st	• Speed Control by frequency control method.
14.11.2022	2nd	← Prathamastami →
to	3rd	• Plugging as application.
19.11.2022	4th	• Different types of motor enclosures
	5th	• Principle of Induction generator & its application
	1st	• Single phase induction motor: Ferraris principle
21.11.2022	2nd	• Double Revolving field theory
to	3rd	• Cross field theory
26.11.2022	4th	• Working and torque - Speed characteristics
	5th	• Split phase motor & capacitor start motor. ✓

Seen

 14/09/2022

Weeks	class day	Theory
28.11.2022 to	1st	• Capacitors start & Capacitors run motor
	2nd	• permanent Capacitors, shaded pole motor
	3rd	• Explain the change of direction of motors.
3.12.2022	4th	• Commutator Motors: Construction, Working
	5th	• Working of Commutator motors.
5.12.2022 to	1st	• Working principle (Cont...)
	2nd	• Repulsion start & Repulsion Induction motor
	3rd	← hart Thursday of Madagascar. →
10.12.2022	4th	• Special Electrical machines: stepper motor.
	5th	• Variable stepper motor.
12.12.2022 to	1st	• permanent magnet stepper motor.
	2nd	• Hybrid stepper motor.
	3rd	• Application of stepper motor.
17.12.2022	4th	• 3 ϕ transformer: Grouping, Advantages.
	5th	• parallel operation of 3 ϕ T/F
19.12.2022 to	1st	• Explain Tap changer (on/off tap changing)
	2nd	• Maintenance schedule of power T/F
	3rd	• Maintenance schedule of power T/F (Cont.)
24.12.2022	4th	
	5th	← closing of Attendance →

Seen

 15/09/2022