


LESSON PLAN-2021-2022 (SUMMER-2022)

Discipline-ETC	Semester-4TH	Name of teaching faculty-Arun Kumar Prusty
SUBJECT- ELECTRIAL MACHINE	No of days/per week class alloted-5	SEM From date- 14.03.2022 No of weeks- 16
Week	Class day	Theory Topics
3RD	3/14/2022	Properties & uses Of different conducting material
	3/15/2022	Properties & use of various materials used electrical engg.
	3/16/2022	Various magnetic materials & their uses.
DC GENERATOR		
4TH	3/21/2022	Construction, Principle & application of DC Generator
	3/22/2022	classify DC generator including voltage equation.
	3/23/2022	Derive EMF equation & simpl problems
	3/25/2022	Parallel operation of DC generator
DC MOTOR		
5TH	3/28/2022	Principle of working of a DC Motor
	3/29/2022	concept of development of torque & back EMF in DC Motor including simpl problems
	3/30/2022	Derive equation relating to back EMF current, Speed and Torque eqn
2ND	4/4/2022	Classify DC motors & explain characteristics, application
	4/5/2022	Three point & four point stator/static of DC motor by speed convert
	4/6/2022	Speed of DC motor by field control & armature control method
	4/8/2022	Power storage of DC motor & drive efficiency of a DC motor
AC CIRCUITS		
3RD	4/11/2022	Mathematical representation of phasors, significant of power 'J'
	4/12/2022	Addition, Subtraction, Multiplication & Division of phasor quant
	4/13/2022	AC series circuits containing resistance capacitance conception of active Reactive and apparent power and Q-factor of series circuits & solve related problems
	4/15/2022	AC series circuits Do containing resistance
	4/16/2022	AC series circuits Do containing resistance
4TH	4/18/2022	Find the relations of AC Parallel circuits containing Resistance, Inductance and capacitance Q- factor of parallel circuits
TRANSFORMER		
	4/19/2022	Ideal Transformer
	4/20/2022	Construction & working principle of transformer
	4/22/2022	Derive of EMF equation of transformer, voltage transformer ratio
	4/23/2022	Discuss Flux Current, EMF components of transformer and their phasor diagram under no load condition
5TH	4/25/2022	Discuss Flux current & EMF components of
	4/26/2022	Phasor representation of transformer flux, current EMF primary and secondary voltages under loaded condition
	4/27/2022	Phasor representation of transformer
	4/29/2022	Phasor representation of transformer
	4/30/2022	Types of losses in single phase (1-0) Transformer

1ST	5/2/2022	Open circuit & short circuit test (Simple problem)
	5/4/2022	Parallel operation of Transformer
	5/6/2022	Auto Transformer
INDUCTION MOTOR		
	5/7/2022	Construction features, types of three phase induction motor
2ND	5/9/2022	Construction features DO Types of three
	5/10/2022	Principle of development of rotating magnetic field in stator
	5/11/2022	Principle of development of rotating
	5/13/2022	Establish relationship between synchronous speed, actual speed and slip of induction motor
	5/14/2022	Establish relationship DO between synchronous
3RD	5/16/2022	Establish relation between torque, rotor current and power factor
	5/17/2022	Establish relation DO between torque,
	5/18/2022	Explain starting of an induction motor by using DOL and Star-Delta stator. State industrial use of induction motor
	5/20/2022	Explain starting DO of an induction
	5/21/2022	Explain starting DO of an induction
SINGLE PHASE INDUCTION MOTOR		
4TH	5/23/2022	Construction features and principle of operation of capacitor type and shaded pole type of single-phase induction motor
	5/24/2022	Construction features DO and principle of
	5/25/2022	Explain construction & AC operation series motor
	5/27/2022	Explain construction DO AC operation series
	5/28/2022	concept of alternator and its application

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