ACADEMIC LESSON PLAN OF SUMMER 2022

Discipline **Electronics & communication Engg.**	Semester: - **4th**	**Name of the Teaching Faculty: Rojalin Choudhury**
Subject: ELECTRICAL MACHINE	No. of days/per week class allotted : 4p/week	Semester From: 10th March 2022 to 10th jun 2022
Week	Class Day	Theory Topics
1st	10/03/2022	**ELECTRICAL MATERIAL** 1.1 Properties & uses of different conducting material. (cont..)
	11/03/2022	1.2 Properties & use of various insulating materials used electrical engineering.
	12/03/2022	1.3 Various magnetic materials & their uses.
	14/03/2022	**DC GENERATOR** 2.1 Construction, Principle & application of DC Generator. (cont..)
2nd	15/03/2022	HOLIDAY
	18/03/2022	HOLIDAY
	19/03/2022	2.1 Construction, Principle & application of DC Generator. .
	21/03/2022	2.2 Classify DC generator including voltage equation.
3rd	22/03/2022	2.3 Derive EMF equation & simple problems. (cont..)
	25/03/2022	2.3 Derive EMF equation & simple problems.
	26/03/2022	2.4 Parallel operation of DC generators. (cont..)
	28/03/2022	2.4 Parallel operation of DC generators.
4th	29/03/2022	HOLIDAY
	01/04/2022	**DC MOTOR** 3.1 Principle of working of a DC motor. (cont..)
	02/04/2022	3.1 Principle of working of a DC motor.
	04/04/2022	3.2 Concept of development of torque & back EMF in DC motor including simple problems. (cont..)
5th	05/04/2022	3.2 Concept of development of torque & back EMF in DC motor including simple problems.
	08/04/2022	3.3 Derive equation relating to back EMF, Current, Speed and Torque equation
	09/04/2022	3.4 Classify DC motors & explain characteristics, application.
	11/04/2022	3.5 Three point & four point stator/static of DC motor by solid State converter. (cont..)
6th	12/04/2022	HOLIDAY
	14/04/2022	HOLIDAY
	15/04/2022	3.5 Three point & four point stator/static of DC motor by solid

		State converter.
	16/04/2022	3.6 Speed of DC motor by field control and armature control method. (cont..)
7th	18/04/2022	3.6 Speed of DC motor by field control and armature control method.
	19/04/2022	3.7 Power stages of DC motor & derive Efficiency of a DC motor. (cont..)
	22/04/2022	3.7 Power stages of DC motor & derive Efficiency of a DC motor.
	23/04/2022	**AC CIRCUITS** 4.1 Mathematical representation of phasors, significant of operator "J" (cont..)
8th	25/04/2022	4.1 Mathematical representation of phasors, significant of operator "J"
	26/04/2022	4.2 Addition, Subtraction, Multiplication and Division of phasor quantities. (cont..)
	29/04/2022	4.2 Addition, Subtraction, Multiplication and Division of phasor quantities.
	30/04/2022	4.3 AC series circuits containing resistance, capacitances, Conception of active, Reactive and apparent power and Q-factor of series circuits & solve related problems. (cont..)
9th	02/05/2022	4.3 AC series circuits containing resistance, capacitances, Conception of active, Reactive and apparent power and Q-factor of series circuits & solve related problems.
	06/05/2022	4.4 Find the relation of AC Parallel circuits containing Resistances, Inductance and Capacitances Q-factor of parallel circuits. (cont..)
	07/05/2022	4.4 Find the relation of AC Parallel circuits containing Resistances, Inductance and Capacitances Q-factor of parallel circuits.
	09/05/2022	**TRANSFORMER** 5.1 Ideal transformer. (cont..)
10th	10/05/2022	5.1 Ideal transformer.
	13/05/2022	5.2 Construction & working principle of transformer
	14/05/2022	HOLIDAY
	16/05/2022	5.3 Derive of EMF equation of transformer, voltage transformation ratio.
	17/05/2022	5.4 Discuss Flux, Current, EMF components of transformer and their phasor diagram under no load Condition.
	20/05/2022	5.5 Phasor representation of transformer flux, current EMF primary and secondary Voltages under loadedcondition.
	21/05/2022	5.6 Types of losses in Single Phase (1-ø) Transformer. (cont..)
	23/05/2022	5.6 Types of losses in Single Phase (1-ø) Transformer.
12th	24/05/2022	5.7 Open circuit & short-circuit test (simple problems) (cont..)
	27/05/2022	5.7 Open circuit & short-circuit test (simple problems)
	28/05/2022	HOLIDAY

	30/05/2022	5.8 Parallel operation of Transformer.
13th	02/06/2022	5.9 Auto Transformer (cont..)
	03/06/2022	5.9 Auto Transformer
	04/06/2022	INDUCTION MOTOR 6.1 Construction feature, types of three-phase induction motor. (cont..)
	06/06/2022	6.1 Construction feature, types of three-phase induction motor.
14th	09/06/2022	6.2 Principle of development of rotating magnetic field in the stator.
	10/06/2022	6.3 Establish relationship between synchronous speed, actual speed and slip of induction motor. (cont..)
	Extra Class	6.3 Establish relationship between synchronous speed, actual speed and slip of induction motor.
	Extra Class	6.4 Establish relation between torque, rotor current and power factor. (cont..)
15th	Extra Class	6.4 Establish relation between torque, rotor current and power factor.
	Extra Class	6.5 Explain starting of an induction motor by using DOL and Star-Delta stator. State industrial use of induction motor. (cont..)
	Extra Class	6.5 Explain starting of an induction motor by using DOL and Star-Delta stator. State industrial use of induction motor.
	Extra Class	**SINGLE PHASE INDUCTION MOTOR** 7.1 Construction features and principle of operation of capacitor type and shaded pole type of single-phase induction motor. (cont..)
16th	Extra Class	7.1 Construction features and principle of operation of capacitor type and shaded pole type of single-phase induction motor. (cont..)
	Extra Class	7.1 Construction features and principle of operation of capacitor type and shaded pole type of single-phase induction motor.
	Extra Class	7.2 Explain construction & operation of AC series motor. (cont..)
	Extra Class	7.2 Explain construction & operation of AC series motor.
17th	Extra Class	7.3 Concept of alternator & its application. (cont..)
	Extra Class	7.3 Concept of alternator & its application.

Signature of Teaching Faculty