

Discipline		Semester	Name of the teaching faculty
ELECTRICAL ENGR.		4th	P. Bisoi
Subjecte		NO of days	Semester from date - 10.03.2022
EMSI		Per week class	To date - 10.06.2022
		all 05 (4+1)	No. of weeks = 15
Months	Weeks	class day	Theory Topics
march	2nd	1st	Define Accuracy, Precision errors.
		2nd	Define resolution, sensitivity and tolerance.
		3rd	classification of measuring instrument
		4th	Damping arrangement in indicating type of instrument.
		5th	Describe construction and principle of operation.
	3rd	18th	Describe errors, ranges merit & demerit.
		2nd	Moving iron type instrument.

Months	Weeks	class day	Theory Topics
		5th	Dynamo meter type instrument.
		4th	Rectifier type instrument, Inductor type instrument.
		5th	use of shunts, Multiplier and solve numerical.
4th	1st	1st	Describe the construction of wattmeter.
		2nd	Principle of working dynamo meter.
		3rd	Types of watt meter L-R-F and V-B type.
		4th	The causes of dynamometer type wattmeter.
		5th	Methods of watt meter correction.
5th	1st	1st	Describe inductor type watt meter.
		2nd	Energy meter and measurement of power.
		3rd	Large scale inductor type energy meter.
		4th	Conclusion.

Months	Weeks	class day	Theory topics
		5th	Construction, working principle of Energy meter and measurement of power.
	2nd	1st	working principle of Speed frequency and power factor.
		2nd	Mechanical and Electrical resonance type frequency meter.
		3rd	Conclusion.
		4th	Principle of operation and working of dynamometer.
		5th	Single phase and three phase power factor meter.
	3rd	1st	Measurement of resistance, inductance and capacitance.
		2nd	Classification of resistance.
		3rd	Conclusion.
		4th	Measurement of low resistance potentiometer other method.
		5th	Measurement of medium resistance by Wheat stone bridge method.
	4th	1st	Construction, principle of operation of wattmeter.

Months	Weeks	class day	Theory Topic
		2nd	Earth Tester for insulation resistance and earth resistance measurement respectively.
		3rd	Construction and principle of multi-meter.
		4th	continue
		5th	Measurement of Inductance by max wells bridge method.
may	14	1st	Measurement of capacitance by schering bridge method.
		2nd	Define transducer and sensing element.
		3rd	Detector element and transduction element.
		4th	continue
	2nd	5th	classified transducer give example of various class transducer.
		1st	Resistive transducer. Linear & longitudinal motion potentiometer.
		2nd	Thermistor and resistance thermometer.
		3rd	continue

Months	Weeks	class day	Theory Topics
		4th	wire resistance strain gauges.
		5th	Inductive transducer with working principle.
	3rd	1st	Principle of linear variable differential transformer.
		2nd	continue
		3rd	Uses of LVDT and capacitive transducer.
		4th	General principle of capacitive transducer.
	4th	1st	change in distance bet <sup>n</sup> plate capacitive transducer.
		2nd	Piezo electric transducer and hall effect transducer with their application.
		3rd	working principle of oscilloscope.
		4th	Principle of operation cathod ray tube.
		5th	Principle of operation cathod ray tube.
		1st	continue
June	1st	1st	Measurement of D.C voltage and current.