

LESSON PLAN

DEPARTMENT OF ELECTRICAL ENGINEERING, ITT, CHOUDWAR

SUBJECT: EMI

Periods: 5per week

SEMESTER: 4th

NAME OF FACULTY: MANOJA KUMAR BEHERA

No. of weeks: 15

Week	Period	Theory / Practical Topics
1 st	1 st	Define Accuracy, precision, Errors, Resolutions Sensitivity and tolerance
	2 nd	Classification of measuring instruments
	3 rd	Explain Deflecting, controlling
	4 th	damping arrangements in indicating type of instruments
	5 th	Calibration of instruments
2 nd	1 st	Describe Construction, principle of operation, errors, ranges merits and demerits Moving iron type instruments
	2 nd	Describe Construction, principle of operation, errors, ranges merits and demerits Moving iron type instruments
	3 rd	Permanent Magnet Moving coil type instruments
	4 th	Dynamometer type instruments
	5 th	Rectifier type instruments
3 rd	1 st	Induction type instruments
	2 nd	Induction type instruments
	3 rd	Extend the range of instruments by use of shunts and Multipliers
	4 th	Solve Numerical
	5 th	Solve Numerical
4 th	1 st	Describe Construction, principle of working of Dynamometer type wattmeter
	2 nd	Describe Construction, principle of working of Dynamometer type wattmeter
	3 rd	The Errors in Dynamometer type wattmeter and methods of their correction
	4 th	Discuss Induction type watt meters
	5 th	Discuss Induction type watt meters
5 th	1 st	Energymeters and measurement of energy Introduction
	2 nd	Single Phase Induction type Energy meters – construction, working principle and their compensation & adjustments.
	3 rd	Single Phase Induction type Energy meters – construction, working principle and their compensation & adjustments.
	4 th	Testing of Energy Meters
	5 th	Tachometers, types and working principles
6 th	1 st	Tachometers, types and working principles
	2 nd	Principle of operation and construction of Mechanical and Electrical resonance Type frequency meters
	3 rd	Principle of operation and construction of Mechanical and Electrical resonance Type frequency meters
	4 th	Principle of operation and construction of Mechanical and Electrical resonance Type frequency meters
	5 th	Principle of operation and working of Dynamometer type single phase and three phase power factor meters
7 th	1 st	Principle of operation and working of Dynamometer type single phase and three phase power factor meters

	2 nd	Classification of resistance
	3 rd	Measurement of low resistance by potentiometer method
	4 th	Measurement of medium resistance by wheat Stone bridge method
	5 th	Measurement of high resistance by loss of charge method
8 th	1 st	Construction, principle of operations of Megger & Earth tester for insulation resistance and earth resistance measurement respectively.
	2 nd	Construction, principle of operations of Megger & Earth tester for insulation resistance and earth resistance measurement respectively.
	3 rd	Construction and principles of Multimeter. (Analog)
	4 th	Construction and principles of Multimeter. (digital)
	5 th	Measurement of inductance by Maxwell's Bridge method
9 th	1 st	Measurement of capacitance by Schering Bridge method
	2 nd	Define Transducer, sensing element or detector element
	3 rd	transduction elements
	4 th	Classify transducer. Give examples of various class of transduce
	5 th	Classify transducer. Give examples of various class of transduce
10 th	1 st	Resistive transducer
	2 nd	Linear and angular motion potentiometer
	3 rd	Thermistor and Resistance thermometers
	4 th	Wire Resistance Strain Gauges
	5 th	Inductive Transducer
11 th	1 st	Principle of linear variable differential Transformer (LVDT)
	2 nd	Uses of LVDT
	3 rd	Capacitive Transducer
	4 th	General principle of capacitive transducer
	5 th	Variable area capacitive transducer
12 th	1 st	Change in distance between plate capacitive transduce
	2 nd	Change in distance between plate capacitive transduce
	3 rd	Piezo electric Transducer
	4 th	Hall Effect Transducer with their applications
	5 th	Principle of operation of Cathode Ray Tube
13 th	1 st	Principle of operation of Cathode Ray Tube
	2 nd	Principle of operation of Oscilloscope (with help of block diagram)
	3 rd	Principle of operation of Oscilloscope (with help of block diagram)
	4 th	Measurement of DC Voltage & current.
14 th	1 st	Measurement of DC Voltage & current.
	2 nd	Measurement of AC Voltage, current, phase & frequency
	3 rd	Measurement of AC Voltage, current, phase & frequency
	4 th	Revision
	5 th	Revision
15 th	1 st	Revision
	2 nd	Revision
	3 rd	Revision
	4 th	Revision
	5 th	Revision