

BHUBANANANDA ODISHA SCHOOL OF
ENGINEERING, CUTTACK

ELECTRICAL ENGG.DEPARTMENT

LESSON PLAN

SEMESTER : 4th(c)

SESSION – Summer-(2021-22)

SUBJECT: EMMI

NAME OF FACULTY:PRATIK MOHANTY

Discipline: Electrical Engg.	Semester:4 th (C)	Name of the teaching faculty:PRATIK MOHANTY
Subject- EMMI	No. of Days/per week class allotted:05PERI ODS /WEEK (,WED- 2 PERIOD THU,FRI.SAT-1 period each)	Semester: From Date: 10/03/2022 To Date:10/06/2022 No. of weeks: 14 WEEKS
Week	Class Day	Theory/Practical Topics
1 st (10/03/2022- 12/03/2022)	10/03/2022	COURSE CONTENT IN TERMS OF SPECIFIC OBJECTIVES 1.MEASURING INSTRUMENTS 1.1Define Accuracy, precision, Errors, Resolutions Sensitivity and tolerance
	11/3/2022	1.2Classification of measuring instruments
	12/3/2022	1.3Explain Deflecting, controlling and damping arrangements in indicating type of instruments
2 nd (14/03/2022- 19/03/2022)	16/03/2022	1.3Explain Deflecting, controlling and damping arrangements in indicating type of instruments. 1.4Calibration of instruments.

	17/03/2022	2. ANALOG AMMETERS AND VOLTMETERS Describe Construction, principle of operation, errors, ranges merits and demerits of
	18/10/2021	2.1 Moving iron type instruments DOLA FESTIVAL
	19/03/2022	Ho; i
3 rd (21/03/2022- 26/03/2022)	23/03/2022	2.2 Permanent Magnet Moving coil type instruments 2.3 Dynamometer type instrument
	24/03/22	2.5 Rectifier and Induction type instruments
	25/03/22	2.6 Extend the range of instruments by use of shunts and Multipliers. 2.7 Solve Numerical
	26/03/2022	WATTMETERS AND MEASUREMENT OF POWER
4 th (28/03/2022- 2- 02/04/2022)	30/03/2022	3.1 Describe Construction, principle of working of Dynamometer type wattmeter 3.2 What are the Errors in Dynamometer type wattmeter and methods of their correction
	31/03/2022	3.3 Discuss LPF Electro- Dynamometer type wattmeter
	01/04/2022	UTKAL DIWAS
	02/04/2022	3.4 Discuss Induction type wattmeters
5 th (04/04/2022- 09/04/2022)	06/04/2022	CLASS TEST-1 4. ENERGY METERS AND MEASUREMENT OF ENERGY 4.1 Introduction construction, working principle and their compensation and adjustments.
	07/04/2022	4.1 Introduction construction, working principle and their compensation and adjustments 4.2 Single Phase and poly phase Induction type Energy meters construction, working

		principle
	08/04/2022	4.2 Single Phase and poly phase Induction type Energy meters construction, working principle
	09/04/2022	4.2 Single Phase and poly phase Induction type Energy meters construction, working principle
6 th (11/04/2022- 16/04/2022)	13/04/2022	Testing of energymeter 5. MEASUREMENT OF SPEED FREQUENCY AND POWER FACTOR 5.1 Tachometer types and working principle.
	14/04/2022	Baba Ambedkar jayanti
	15/04/2022	Good friday
	16/04/2022	5.2 principle of operation and construction of mechanical frequency meter
7 th (18/04/20 22- 23/04/2022)	20/04/2022	5.3 principle of operation and construction of dynamometer type 1 phase and 3 phase power factor meter
	21/04/2022	Class test-2
	22/04/2022	5.3 principle of operation and construction of dynamometer type 1 phase and 3 phase power factor meter
	23/04/2022	6. MEASUREMENT OF RESISTANCE, INDUCTANCE & CAPACITANCE 6.1 Classification of resistance 6.1.1. Measurement of low resistance by potentiometer method
8 th (25/04/20 22- 30/04/2022)	27/04/2022	6.1.2. Measurement of medium resistance by wheatstone bridge method
	28/04/2022	6.1.3. Measurement of high resistance by loss of charge method
	29/04/2022	6.2 Construction, principle of operation of Megger & Earth tester for insulation resistance and earth resistance measurement respectively

	30/04/2022	6.2 Construction, principle of operations of Megger & Earth tester for insulation resistance and earth resistance measurement respectively
9 th (02/05/2022- 07/05/2022)	04/05/2022	6.3 Measurement of capacitance by Schering Bridge method Construction and principles of Multimeter. (Analog and Digital)
	05/05/2022	6.4 Measurement of inductance by Maxwell's Bridge method
	06/05/2022	6.5 Measurement of capacitance by Schering Bridge method
	07/05/2022	7. SENSORS AND TRANSDUCER
10 th (09/05/2022- 14/05/2022)	11/05/2022	7.1 Define Transducer, sensing element or detector element and transduction elements 7.2 Classify transducer. Give examples of various class of transducer
	12/05/2022	7.3 Resistive transducer 7.3.1 Linear and angular motion potentiometer 7.3.2 Thermistor and Resistance thermometers Capacitive Transducer.
	13/05/2022	7.4 Inductive Transducer 7.4.1 Principle of linear variable differential transformer (LVDT) 7.4.2 its use
	14/05/2022	7.5 Capacitive Transducer. 7.5.1 General principle of capacitive transducer 7.6 Piezoelectric Transducer and Hall Effect Transducer with their applications
11 th (15/05/2022- 21/05/2022)	18/05/2022	7.5.2 Variable area capacitive transducer. 7.5.3 Change in distance between plate capacitive transducer.
	19/05/2022	7.6 Piezoelectric Transducer and Hall Effect Transducer with their applications.

	20/05/2022	7.6 Piezoelectric Transducer and Hall Effect Transducer with their application.
	21/05/2022	OSCILLOSCOPE
12 th (23/05/2022- 28/05/2022)	25/05/2021	8.1 Principle of operation of Cathode Ray Tube 8.1 Principle of operation of Cathode Ray Tube
	26/05/2022	8.2 Principle of operation of Oscilloscope (with help of block diagram).
	27/05/2022	8.3 Measurement of DC Voltage & current
	28/05/2022	8.4 Measurement of AC Voltage, current, phase & frequency.
13 th 01/06/20 22- 04/06/2022	01/06/2022	Class test 3
	02/06/2022	Class test-4
	03/06/2022	Revision and discussion
	04/06/2022	Revision and discussion
14 th (6/05/202 2- 10/05/2022)	08/05/2022	Previous Year Question Discussion
	09/05/2022	Previous Year Question Discussion
	10/05/2022	Previous Year Question Discussion