

Specimen of lesson Plan

Name of the

Faculty

Ms. Rajni

Discipline

:

ELECTRICAL ENGG.

Semester

4th

Subject

:

INSTRUMENTATION

Lesson Plan Duration 15 weeks(from January, 2018 to April,2018)

Work Load(Lecture/Practical) per week (in hours): Lectures-03, Practicals -

02

Week		Theory		Practicals
	Lecture Day	Topic (including assignment/test)	Practical Day	Topic
1st	1st	Unit 1 : Measurement : Introduction and Importance of Measurement	1st	Measurement of Level of Liquid
	2nd	Basic Measuring systems , Their advantages and limitations	2nd	Measurement of Level of Liquid
	3rd	Display Devices		
2nd	4th	Unit 2 : Transducer : Classifications of transducers	3rd	Temperature measurement using Thermocouple
	5th	Resistance Transducer	4th	Temperature measurement using Thermocouple
	6th	Inductance Transducer		
3rd	7th	Capacitance Transducer	5th	Study and use of Digital Temperature controller
	8th	Electromagnetic Transducer	6th	Study and use of Digital Temperature controller
	9th	Piezo electrical Transducer		

4th	10th	Unit 3 measurement of Displacement and Strain : Displacement measuring Devices	7th	Use of Thermistor in ON/OFF Transducer
	11th	Wire wound potentiometer	8th	Use of Thermistor in ON/OFF Transducer
	12th	LVDT		
5th	13th	Strain Guages and their types resistance type	9th	Study of Variable Capacitive transducer
	14th	Wire and Foil Type	10th	Study of Variable Capacitive transducer
	15th	Gauge Factor , Guage Material		
6th	16th	Selection of Guage Material	11th	Draw the characteristics of Potentiometer
	17th	Use of electrical Strain Guage	12th	Draw the characteristics of Potentiometer
	18th	Strain Guage Bridges and amplifier		
7th	19th	Unit 4 Force and Torque Measurement : Force measuring Devices	13th	To measure Linear Displacement using LVDT
	20th	Elastic Transducer	14th	To measure Linear Displacement using LVDT
	21st	Electrical Strain Guage		
8th	22nd	Load Cell	15th	To study the use of Electrical strain Guage
	23rd	Measurement of torque by Brake method	16th	To study the use of Electrical strain Guage

	24th	Dynamometer method		
9th	25th	Electrical Strain Guage	17th	To study weighing machine using load cell
	26th	Speed Measurement	18th	To study weighing machine using load cell
	27th	Digital Methods		
10th	28th	Unit 5 Pressure Measurement : Bourdon Pressure Gauges	19th	To study pH meter
	29th	Bellows and Diaphragms	20th	To study pH meter
	30th	Secondary Transducers		
11th	31st	Measurement of Low Pressure	21th	Revision Experiment 1-2
	32nd	Use of Pressure Cell	22nd	Revision Experiment 1-2
	33rd	Unit 6 Flow Measurement Electromagnetic Method		
12th	34th	Doppler shift ultrasonic Method	23rd	Revision Experiment 3-4
	35th	Transit Time ultrasonic method	24th	Revision Experiment 3-4
	36th	Unit 7 Measurement of Temperature Bimetallic Thermometer		
13th	37th	Thermoelectric Thermometer	25th	Revision Experiment 5-6

	38th	RTD	26th	Revision Experiment 5-6
	39th	Thermocouple		
14th	40th	Thermister and Pyrometer	27th	Revision Experiment 7-8
	41st	Temperature Recorder	28th	Revision Experiment 7-8
	42nd	Unit 8 Measurement of other Non Electrical Quantity Humidity		
15th	43rd	pH	29th	Revision Experiment 9-10
	44th	Level	30th	Revision Experiment 9-10
	45th	Vibration		