



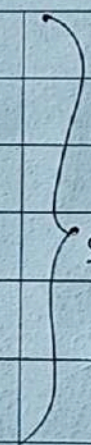
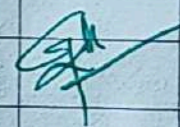
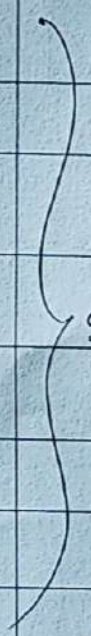
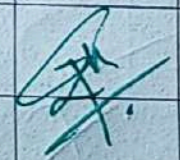
MAHARAJA POLYTECHNIC, TARABAI, BHUBANESWAR.  
LESSON PLAN

NAME OF FACULTY:- BIKASH CHANDRA SAHOO  
BRANCH & SEMESTER:-ETC (5TH SEM)  
TOTAL NO. OF STUDENT IN THE CLASS:- 37  
TOTAL NO. OF CLASSES REQUIRED:-60  
SESSION:-2021-22

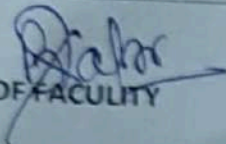
SUBJECT NAME:- EMI  
SUBJECT CODE:-Th4


Sl. No.	Topics to be covered	Topics covered on date	Total no. of students present	Verified By HOD	Verified by the principal	Remark
	<b>Unit-1: Qualities of Measurement</b>					
1	Discuss the Static Characteristics	8/11/21	11	}	}	
2	Accuracy, sensitivity, reproducibility & static error of instruments	9/11/21	23			
3	Dynamic characteristics & speed of instruments.	12/11/21	29			
4	Errors of an instrument & explain various types	15/11/21	30			
	<b>Unit-2: Indicating Instruments</b>					
5	Introduction to Indicator & Display devices & its types	16/11/21	29	}	}	
6	Basic principle of meter movement, permanent magnetic moving coil movement & its advantages & disadvantages.	22/11/21	29			

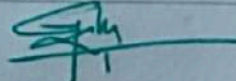
7	Operation of Moving Iron Instrument	23/11/21	30	
8	Basic principle of operation of DC Ammeter and Multi range Ammeter	24/11/21	31	
9	Basic principle of operation of AC Ammeter and Multi range Ammeter	29/11/21	32	
10	Basic principle of operation of DC Voltmeter and its applications	30/11/21	30	
11	Basic principle of operation of AC Voltmeter and its application	3/12/21	30	
12	Basic principle of Ohm Meter (Series & Shunt type)	6/12/21	28	
13	Basic principle of Analog Multimeter, its types & applications	7/12/21	29	
14	Operation of Q meter and its essentials	10/12/21	27	
<b>Unit-3: Digital Instruments</b>				
15	Principle of operation of Ramp type Digital Voltmeter & applications	13/12/21	32	
16	Operation of display of $3\frac{1}{2}$ , $4\frac{1}{2}$ - Digital Multimeter & Resolution and Sensitivity	17/12/21	32	
17	Basic principle of operation of working of Digital Multimeter its types & applications	20/12/21	31	
18	Basic principle of operation of working of Digital Frequency Meter	21/12/21	29	
19	Operation of working of Digital Measurement of Time	27/12/21	30	
20	Measurement of Frequency.	28/12/21	29	
21	Principle of operation of working of Digital Tachometer	..		

22	Principle of operation of working of Automation in Digital instruments (Polarity Indication Ranging, Zeroing & Fully Automatic)	7/1/22	29		
23	Block diagram of LCR meter & its working principle.	10/1/22	27		
<b>Unit-4: Oscilloscope</b>					
25	Basic principle of Oscilloscope & its Block Diagram	11/1/22	29		
26	Basic principle & Block diagram of CRO, Dual Trace Oscilloscope & its specification	17/1/22	30		
27	CRO Measurements, Lissajous figures	18/1/22	29		
28	Applications of Oscilloscope (Voltage period & frequency measurement)	"			
29	Operation of Digital Storage Oscilloscope & High frequency Oscilloscope	21/1/22	29		
<b>Unit-5 Bridges</b>					
30	Types of Bridges (DC & AC Bridges)	24/1/22	29		
31	DC Bridges (Measurement of Resistance by Wheatstone's Bridge)	25/1/22	33		
32	AC bridges (Measurement of inductance by Maxwell's Bridge & by Hay's Bridge)	28/1/22	27		
33	Measurement of capacitance by Schering's Bridge & De Sauty Bridge.	31/1/22	27		
34	Working principle of Q meter its circuit diagram & measurement of Low impedance	1/2/22	30		
35	Measurement of frequency	4/2/22	31		
36	LCR Meter & its measurements	"			
<b>Unit-6: Transducers &amp; Sensors</b>					

37	4.1 Working principle of a PBX & Digital EPABX. 4.2 Units of Power Measurement.	7/2/22	33	}	Suresh G.M.
38	4.3 Working principle of Internet Protocol Telephone 4.4 Working principle of Internet Telephone	8/2/22	26		
<b>UNIT -5 Data Communication</b>					
39	Parameter, method of Selecting & advantage of Electrical Transducer & Resistive Transducer	11/2/22	30		
40	Working principle of Strain Gauges, define Strain Gauge (Nomathematical Derivation)	18/2/22	28		
41	Working principle of LVDT	21/2/22	31		
42	Working principle of capacitive transducers (pressure)	22/2/22	28		
43	Working principle of Load Cell (Pressure Cell)	"			
44	Working principle of Temperature Transducer (RTD, Optical Pyrometer, Thermocouple, Thermister)	25/2/22	22		
45	Working principle of Current transducer and KW Transducer.	"			
46	Working principle of Proximity & Light sensors.	"			
<b>Unit-7: Signal Generator, Wave Analyser &amp; DAS</b>					
47	General aspect & classification of Signal generators	24/2/22	8	}	Suresh G.M.
48	Working principle of AF Sine & Square wave generator.	"			
49	Working principle of the Function Generator				
50	Function of basic Wave Analyser & Spectrum Analyser				
51	Basic concept of Data Acquisition System (DAS)				

  
SIGN OF FACULTY

  
SIGN OF HOD

  
SIGN OF PRINCIPAL