

The Maharaja Sayajirao University of Baroda Polytechnic Diploma in Electronics & Communication Engg. (HPP)			ACADEMIC YEAR 2022-23		
Year	II	ELECTRONICS WORKSHOP(ELE3338L)	Lab Hrs per week	4	
Semester	I		Max marks	100	
Pre-Requisite: Basic Mathematics, Basic Electronics					
CO1	Identify electronic components such as resistors, capacitors, transistors, diodes, LEDs, LDRs, relays, and their circuit symbols.				
CO2	Assemble simple electronic circuits like amplifiers, oscillators, power supplies, and multivibrators on Bakelite boards.				
CO3	Fabricate printed circuit boards by designing layouts, preparing surfaces, etching, and cleaning PCBs.				
CO4	Explain the basic workflow and features of PCB-design software.				
CO5	Construct complete PCB-based setups by integrating components, wiring, and layout designs.				
BT	1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation				
COURSE CONTENT/SYLLABUS					
Unit	Unit Name		Hrs	Weightage	CO
1	Demonstration of various electronics components like different types of resistors and capacitors , transistors , phototransistors , diodes, photo diodes, LED,LDR, relays , contactors etc, along with their circuit symbols		12	10	CO1
2	Wiring of simple electronic circuits like a one or two stages amplifier, Oscillator, Power supply or multivibrator on a Bakelite boards fitted with eyelets or tags.		12	10	CO2
3	Fabrication of a printed circuit boards, Designing the layout for PCB, preparing the PCB using enamel paint, etching the PCB, cleaning the PCB.		20	20	CO3 CO5
4	Introduction to PCB making Software.		12	10	CO4
			56	100	
REFERENCE BOOKS:					
1	Basics of Electronics Engineering for Diploma Engineer by G.K.Publications				
2	Principles of Electronics by V.K. Mehta and Rohit Mehta				

