

DISCIPLINE: Electrical & Electronics Engg.	SEMESTER: 3 rd Semester	NAME OF THE TEACHING FACULTY: Ms. Deepika Sarkar Lecturer -II in ETC
SUBJECT: Digital Electronics Lab(PR3)	NO OF DAYS/PER WEEK CLASSES ALLOTTED: 3	SEMESTER FROM DATE: 14.07.2025 TO DATE: 15.11.2025 NO OF WEEKS: 15

Week	Class Day	PRACTICAL Topics
1 st	1 st	To verify the truth tables for all logic gates – NOT OR AND NAND NOR XOR XNOR using CMOS Logic gates and TTL Logic Gates
	2 nd	To verify the truth tables for all logic gates – NOT OR AND NAND NOR XOR XNOR using CMOS Logic gates and TTL Logic Gates
2 nd	1 st	Implement and realize Boolean Expressions with Logic Gates
	2 nd	Implement and realize Boolean Expressions with Logic Gates
3 rd	1 st	Implement Half Adder, Full Adder, Half Subtractor, Full subtractor using ICs
	2 nd	Implement Half Adder, Full Adder, Half Subtractor, Full subtractor using ICs
4 th	1 ST	Implement parallel and serial full-adder using ICs
	2 ND	Implement parallel and serial full-adder using ICs
5 th	1 ST	Design and development of Multiplexer and De-multiplexer using multiplexer ICs
	2 ND	Design and development of Multiplexer and De-multiplexer using multiplexer ICs
6 th	1 ST	Verification of the function of SR,D, JK and T Flip Flops
	2 ND	Verification of the function of SR,D, JK and T Flip Flops
7 th	1 ST	Design controlled shift registers
	2 ND	Design controlled shift registers
8 th	1 ST	Construct a Single digit Decade Counter (0-9) with 7 segment display
	2 ND	Construct a Single digit Decade Counter (0-9) with 7 segment display
9 th	1 ST	To design a programmable Up-Down Counter with a 7 segment display
	2 ND	To design a programmable Up-Down Counter with a 7 segment display
10 th	1 ST	Study of different memory ICs
	2 ND	Study of different memory ICs
11 th	1 ST	Study Digital- to – Analog and Analog to Digital Converters
	2 ND	Study Digital- to – Analog and Analog to Digital Converters
12 th	1 ST	Simulate in Software (such as PSpice) an Analog to Digital Converter
	2 ND	Simulate in Software (such as PSpice) an Analog to Digital Converter
13 th	1 st	Simulate in Software (such as PSpice) an Digital to Analog Converter
	2 nd	Simulate in Software (such as PSpice) an Digital to Analog Converter
14 th	1 ST	Repeat Class
	2 ND	Repeat Class
15 th	1 st	Repeat Class
	2 nd	Repeat Class

Deepika Sarkar
Lecturer 14.07.25

Deepika Sarkar
HOD 14.07.25

Principal 14/7/25