

CLASSES PER WEEK: 4	LESSON PLAN	
	SUB: DIGITAL ELECTRONICS AND MICROPROCESSOR LABORATORY BY: NIHARIKA SETHI, LECT ETC BRANCH: ELECTRICAL ENGG, SEM: 5 TH , From: 01.07.2026 to 05.11.2026	
WEEK	NAME OF EXPERIMENTS	
1	Verification of the truth tables of TTL gates.	
2	Verify the NAND and NOR gates as universal logic gates.	
3	Design and verification of the truth tables of Half and Full adder circuits.	
4	Design and verification of the truth tables of Half and Full subtractor circuits.	
5	Verification of the truth table of the Multiplexer 74150.	
6	Verification of the truth table of the De-Multiplexer 74154.	
7	Design and test of an S-R flip-flop using NOR/NAND gates.	
8	Verify the truth table of a J-K flip-flop (7476)	
9	Verify the truth table of a D flip-flop (7474)	
10	Operate the counters 7490, 7493.	
11	Design of 4-bit shift register (shift right).	
12	Design of modulo-4 counter using J K flip-flop.	
13	Write a program using 8085 Microprocessor for Decimal, Hexadecimal addition and subtraction of two Numbers.	
14	Write a program using 8085 Microprocessor for addition and subtraction of two BCD numbers	
15	Perform multiplication and division of two 8 bit numbers using 8085	
16	Write a program to arrange an array of data in ascending and descending order.	
17	Convert given Hexadecimal number into its equivalent ASCII number and vice versa using 8085 instruction set.	
18	Write 8085 Interfacing Program (a) A/D Interfacing. (b) D/A Interfacing (c) I/O port Communication using 8255	

COURSE OUTCOMES: After completion of the course, the students will be able to

CO1	Understand Logic circuits using basic concepts of Boolean algebra
CO2	Design any Logic circuit using basic concepts of PLDs.
CO3	Understand operations and applications of 8085 Microprocessor.
CO4	Design 8085 interface using programmable I/O device

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25.06.26