

UNIVERSITY OF ENGINEERING & MANAGEMENT (UEM) KOLKATA



श्रद्धावानं लभते ज्ञानम्
UEM

INDEX

LAB : ANALOG AND DIGITAL ELECTRONICS LAB

YEAR : 2ND YEAR SEMESTER : 3RD SEMESTER

EXPT. NO.	DATE	NAME OF THE EXPERIMENT	PAGE	REMARKS
1.	01/08/17	Realization of Basic gates.	1-9	881 A
2.	01/08/17	Realization of Basic gates using NAND gate	10-15	
3.	01/08/17	Realization of Basic gates using NOR gate	16-21	
4.	08/08/17	Design a circuit to indicate 4 bit odd or even numbers.	22-26	
5.	08/08/17	Realization of a circuit for indicating prime & non-prime numbers.	27-32	

YEAR : 2ND YEAR SEMESTER 3RD

EXPT. NO.	DATE	NAME OF THE EXPERIMENT	PAGE
6.	08/08/17	Implementation of	
		Half-Adder circuit	
		using basic gates.	33-38
7.	08/08/17	Implementation of	
		Full Adder circuit	
		using basic gates.	39-44
8.	22/08/17	Implementation of	
		Full Adder using two	
		Half Adders	45-49
9.	22/08/17	Implementation of	
		Half Subtractor	
		using Basic Gates.	50-53.

EXPT. NO.	DATE	NAME OF THE EXPERIMENT
10.	22/08/17	Implementation of full subtractor using basic gates.
11.	22/08/17	Implementation of full subtractor using half subtractor.
12.	22/08/17	Realization of a circuit that converts BCD numbers to EXCESS 3 numbers.
13.	29/08/17	Realization of a circuit that converts EXCESS - 3 codes to BCD.

EXPT. NO.	DATE	NAME OF THE EXPERIMENT	PAGE
14.	29/08/17	Realization of a circuit to convert 4-bit binary number to Gray code .	76-82
15.	29/08/17	Realization of a circuit to convert Gray code to Binary code (4-bit)	83-87.
16.	29/08/17	Realization of an Even Parity Generator and checker circuit .	88-93
17.	12/09/17	Realization of the internal architecture of 4:1 Multiplexer .	94-97

EXPT. NO.	DATE	NAME OF THE EXPERIMENT	PAGE
18.	12/09/17	Realization of the internal architecture of 1:4 DEMUX	98-101
19.	12/09/17	Realization of 4:2 priority encoder along with output indicator.	102-105.
20.	12/09/17	Realization of 3:8 decoder	106-109
21.	12/09/17	Realization of octal to binary encoder using basic gates.	110-113.
22.	10/10/17	Implementation of 2-bit comparator circuit.	114-118.

YEAR : 2ND YEAR SEMESTER 3RD SE

EXPT. NO.	DATE	NAME OF THE EXPERIMENT	PAGE
23.	10/10/17	Implementation of Full Adder using MUX	119-122.
24.	10/10/17	Implementation of Full Subtractor using MUX	123-126
25.	10/10/17	Implementation of Full Adder using Decoder	127-130
26.	10/10/17	Implementation of Full Subtractor using Decoder	131-134.
27.	17/10/17	Implementation of SR Flip Flop using NAND gate	135-137.
28.	17/10/17	Implementation of JK Flip-Flop using NAND gate	138-140

EXPT. NO.	DATE	NAME OF THE EXPERIMENT
29.	17/10/17	Implementation of D Flip-Flop using NAND gate
30.	17/10/17	Implementation of a 3-bit up counter.
31.	17/10/17	Implementation of a 3-bit down counter
32.		Realization of shift. register circuit
33.		Implementation of Schmitt trigger circuit using IC555 Timer
34.		Implementation of 4-bit Asynchronous counter.