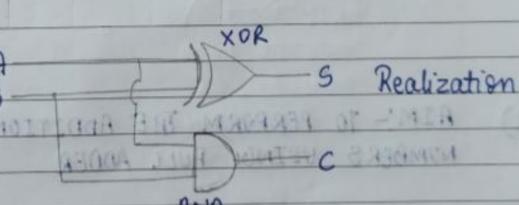
EXPERIMENT 5 :COMBINATIONAL CIRCUITS

Page No.:

A) AIM: TO PERFORM THE ADDITION OF TWO BIT NUMBERS USING HALF ADDER.

TRUTH TABLE :-

	INP	UTS	OUTPUTS		Boolean Exp:		
	A	В	S	C			
	0	0	0	0	SUM(S) = A·B + A·B		
Witx	dies	0	1	0	CARRY (C) = A-B		
	0	-	1	0	and the same of th		
	1	1	0	1			



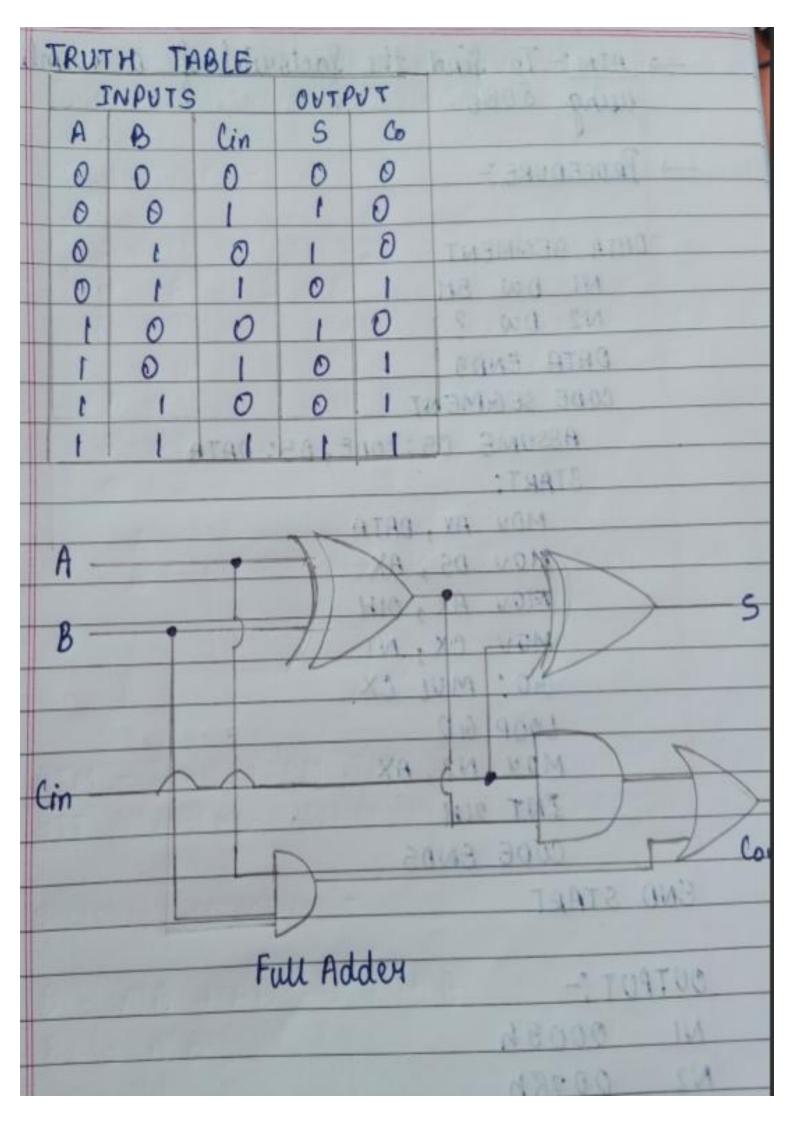
38 A + 380 + 381 + 381 = C

B) AIM :- TO PERFORM THE SUBTRACTION OF TWO
BIT NUMBERS USING HALF SUBTRACTOR

Boolean Expression -

 $D = A'B + AB' = A \oplus B$ Bo = A'B

-70	TOUT	U TABLE	i- 207	9307437	W 2000	1			
20	A				CARLOR SHOW MANAGEMENT	1			
		1000	BUKKUW	DIFFERE	NCEITIM				
	0	0	0	0					
540	0	1	1	- 18A	RETRI				
	1	0	0	1					
	[103] (u	3 6018	0 11	100	TAPI				
		1 2 11		5 9	13				
- A +	9-H = C	SIMIE	0	0 -0	.0				
6	1 A 0	CHKKS C	716	1 0	Realizati	en			
T.	20	1	112	10	0				
	D	First 1	12	0 1	1				
	1								
	300								
	Realiza	3			10				
1.00	ATM!	To 0000	DOOM THE	TELOOP	ON OF D	HOPE ATT			
c)	AIM: TO PERFORM THE ADDITION OF THREE BIL								
	NUMBERS USING FULL ADDER								
- 11	0 03	5 L 5	GUIH .	. 1 7 67	-				
	9 = A1	BL T AL	BC + AID	C + ABO	121	a la			
TWO	- C(AB + AB) + C(AB + AB) - C(ABB) + C(ABB) = ABBC								
	SHATOR	CADB) + 00	ADB) +	A (+) E	O C			
	_								
	1 - TAC + ARC + ARC + ARC								
	Cout = ABC + ABC + ABC + ABC (ABB).C + AB								
	3 0 A = 18A + 8'A = 0								
		-	900	CINT TO	10	9			
			10-1-1-11-11-11-11-11-11-11-11-11-11-11-	A	100 00 00				



D) AIM: - TO FIND THE SUBTRACTION OF THREE BIT NUMBERS USING FULL SUBTRACTOR D, = A' (B' Bin + BBin') + A(B' Bin + BBin) - A' (B @ Bin) + A (B @ Bin)' = A 1 8 1 Bin Bo = A'B'Bin + ABBin + A'B (Bin + Bin) = Bin (A DB') + AB TRUTH TABLE :-

	I	OUTPUT					
	A	8	Bin	13	D x	Bout	2 =
11	0	0	0	2	0	0	Gue .
	0	0	1		1	1	
24.	0	legicia	0		100	- 90 =	101
CHILD	0	i	1		0	ľ	
	3 100	166	0	6 (p/g	0	2
100	(aib	0	+ 18c	10/1	0	0	0
7 04	1	1	0	0	0	0	
			1		4+	0 1	- d . 9
		100 - 0			V		0

