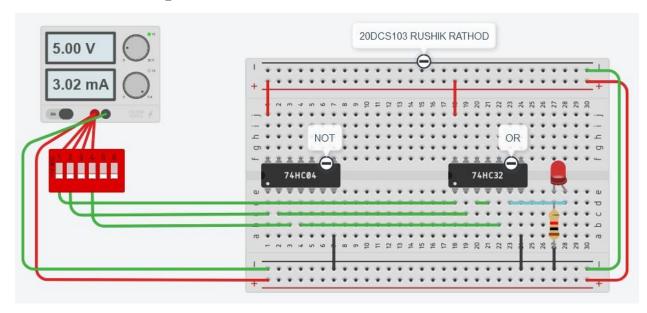# CE252 - Digital Electronics

Internal Practical

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY

DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY & RESEARCH

RUSHIK RATHOD

20DCS103 DEPSTAR CSE : 2 - Batch : B

DE Practical   Exam   29/09/2021.

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                                      Data   /   /

* Solve the expression using k-map.

$$F(A, B, C, D) = \Sigma (0, 1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15)$$

AB \ CD	00	01	11	10
00	1 (0)	1 (1)	1 (3)	1 (2)
01	1 (4)	(5)	(7)	1 (6)
11	1 (12)	1 (13)	1 (15)	1 (14)
10	1 (8)	1 (9)	1 (11)	1 (10)

$$\therefore F(A, B, C, D) = B' + D' + A$$
$$= A + B' + D'$$

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* Truth table for verification :-

A	B	D	B'	D'	$A + B' + D'$
0	0	0	1	1	1
0	0	1	1	0	1
0	1	0	0	1	1
0	1	1	0	0	0
1	0	0	1	1	1
1	0	1	1	0	1
1	1	0	0	1	1
1	1	1	0	0	1

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❖ **Tinkercad Implementation:**

Thank you…