

Indian Institute of Technology Delhi
ELL201/ELP201: Digital Electronics Laboratory
2020-21, Semester II

Experiment 4: Exercise with 7-segment LED Display

For a BCD input ABCD, with A being the LSB and D being the MSB, consider the decoder IC 7447:

1. Make truth table with inputs A, B, C, D and outputs a through g.
2. Find minimal logic expressions for outputs “a” through “g” using K-maps.
3. Draw logic diagram of the decoder using only 2 and 3 input NAND gates.
4. Implement the 7-segment display using IC 7447.

