



Assignment 3 - Digital Electronics and Computer Organization Laboratory- ENCS2110

Q1) Using IC 7402 (NOR), construct a circuit that implements the Boolean function: $F = ((A+B).C)'$

Draw the complete circuit diagram and provide its truth table. (2 points)

Q2) Design and implement a Half adder using only NAND gates. Draw the circuit, label all ICs and their numbers, and provide the truth table. (2 points)

Q3) Build a counter that counts from 0 to 6, and show the required connections between IC 7447, a 7-segment display, and the 7490 counter. (3 points)

Q4) Design a two-decade counter that counts from 00 to 39. (3 points)