

Set for Team 15

Construct the necessary truth table(s), Boolean functions and Simulation file with the appropriate IC diagram comprising the basic logic gates that represent the following scenario:

Suppose in your bed room there are 3 electric bulbs and 1 ceiling fan. Any of the bulb can serve your purpose accordingly and you wish to prepare a microcontroller-based device that only allows to turn on two of the lights at best AND the fan together at a time. How are you supposed to build the underlying logic with a Boolean function? Construct the truth table according to your logic and draw the function from there.