

### *Set for Team 41*

**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:**

In an industry automation job, if you are asked to develop a data logger system, which can observe 4 different Gas sensors and notify system manager with an emergency alarm siren when one **OR** more of the gas sensors reaches danger level due to toxicity in the air or sudden rise in temperature. Use binary logic to determine whether the individual gas sensor is in normal state or reaches above the threshold value. Construct corresponding truth table and simulate the scenario with a combinational circuit representing a Boolean function.