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| **TERM :** 23/06/2023 TO 23/9/2023 | | **COURSE :** Programming IoT | | | |
| **DATE :** 04/08/2023 | | **COURSE CODE :** MCAE31 | | | |
| **MAX MARKS :** 30 | |  | | | |
| **Q.No** | **Question** | | **CO’s** | **Blooms**  **Level** |
| 1 | There is leakage of LPG in kitchen, identify the sensor to detect the leakage and conduct the experiment using same and alert the user in case of gas leakage when there is no surrounding Light in the Kitchen by turning ON/OFF LED and print appropriate messages in the serial monitor using Arduino. | | CO1 | L3 |
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| 2 | Assume that there is an intruder moving around in front of your home-door, identify the sensors to detect the movement of the intruder when there is no Surrounding Light and alert the user using LED. | | CO1 | L3 |
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| 3 | Assume that your vehicle caught fire, Conduct the experiment to Alert the intruder (Turn ON LED) who is approaching the vehicle at a distance of less than 3 cm from the vehicle by detecting smoke. Print appropriate messages in the serial monitor using Arduino. | | CO1 | L3 |
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| 4 | A shopping mall need to automatically open the door (Turn ON the LED) when the person is detected at a distance of < 10cm from the door and at the same time if the surrounding light is Dark. Otherwise automatically closes (Turn OFF the LED) after entering, Identify the sensors and demonstrate the same using LED. Print the messages as “Door opened” and “Door Closed” in the serial monitor using Arduino. | | CO1 | L3 |
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| 5 | Conduct the experiment to detect the movement of the object/intruder when there is no Surrounding Light and alert the user using LED and print the appropriate message in Serial Monitor using Arduino. | | CO1 | L3 |
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| 6 | Demonstrate the following   * If the temperature>=200 and humidity is >=40 and <= 50 turn ON GREEN LED; otherwise turn OFF LED. * If the temperature>=200 and humidity is >50 and <= 60 turn ON RED LED; otherwise turn OFF LED. * If the temperature>=200 and humidity is >60 and <= 70 turn ON YELLOW LED; otherwise turn OFF LED. | | CO1 | L3 |
|  | | | |  |
| 7 | Assume that there is an intruder in front of your home-door, identify the sensors to detect the intruder at a distance of less than 3cm from the door and there is no Surrounding Light and alert the user using LED. Also print the appropriate message in Serial Monitor using Arduino. | | CO1 | L3 |

Instruction: **Demonstrate All the Experiments using Arduino Uno**