|  |  |  |  |
| --- | --- | --- | --- |
| **RESULTS:**  **TASK 1**   1. Attach screen shot of LED circuit with LEDs chasing (any LED light up).  |  | | --- | |  |   **TASK 2**   1. Attach screen shot of new LED circuit.  |  | | --- | |  |  1. Write modified program. 2. Attach screen shot of new LED circuit with LED 5 and 6 light up with push BUTTON is pressed.  |  | | --- | |  |   **DISCUSSION:**   1. Explain the function of for (int thisPin = 3; thisPin < 12; thisPin++) in the program.   (4 marks)  Declare pin 3 until pin 12. This is used to arrange the sequence of lighting the LED starting from pin 3 until pin 12. The LED connected to the pins will light up individually for 500ms and then turn for 500ms starting from LED at pin 3 until LED at pin 12.   1. Write the function of ledBlink() if LED 1 and LED 10 used to blink ON and OFF for 300ms delay.   (7 marks)   1. Sketch a circuit of push BUTTON with PULL-UP resistor to any Arduino UNO pin (just 1 pin label) for trigger-LOW (Active LOW) function.   (5 marks)   1. Discuss your observation on this experiment and relate your finding to objectives.   (10 marks)  There were 2 main functions that Arduino can read, which were **void setup ()** and **void loop ().** The program placed in **void setup ()** would be read once and **void loop ()** would be repeated until the program ended**. If else** argument were used to determine the function of the switch. 2 more sub-function were added to control the switch action. When the pushbutton is pushed, the pull-up circuit activates LED 5 & LED 6. This occurs because when the pushbutton is pressed, Arduino will get **HIGH** input **(+5V)** and when released it will get **LOW** input **(0V).** |
| **CONCLUSION:**  Conclude this experiment relates to result obtain.  Based on this experiment, Arduino **‘blink’** program was compiled by using a function and **‘if else’** statement. 10 LEDs were used to demonstrate the **‘blink’** program the lights are lit in turn with the 500 milliseconds delay. For pull-up resistor switch was shown by using **‘if else’** statement. Pull-up is used to eliminate the **GREY** area. When the button is pushed, it will send **HIGH** input and it will send **LOW** input when button released. |