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***COURSE:*** *COMPUTER ARCHITECTURE* ***(LAB)***

***TASK #:*** *5*

***SUBMITTED TO:*** *SIR ABUZAR ZAFAR*

***CODE:***

*#include <LiquidCrystal.h>*

*int pinTemp = A0;*

*int green = 8;*

*int blue = 7;*

*int yellow = 6;*

*int orange = 1;*

*int red = 0;*

*LiquidCrystal lcd(12, 11, 5, 4, 3, 2);*

*void setup() {*

*lcd.begin(16, 2);*

*pinMode(pinTemp,INPUT);*

*pinMode(green,OUTPUT);*

*pinMode(blue,OUTPUT);*

*pinMode(yellow,OUTPUT);*

*pinMode(orange,OUTPUT);*

*pinMode(red,OUTPUT);*

*analogReference(INTERNAL);*

*delay(1000);*

*}*

*void loop() {*

*int reading=analogRead(A0);*

*float tempC = reading/9.31;*

*float tempF = (tempC \* 9.0 / 5.0) + 32.0;*

*lcd.setCursor(0,0);*

*lcd.print(tempC);*

*lcd.println("C");*

*lcd.setCursor(0,1);*

*lcd.print(tempF);*

*lcd.println("F");*

*delay(100);*

*if(tempC == 9 || tempC <= 29)*

*{*

*digitalWrite(green,HIGH);*

*digitalWrite(blue,LOW);*

*digitalWrite(yellow,LOW);*

*digitalWrite(orange,LOW);*

*digitalWrite(red,LOW);*

*}*

*else if (tempC == 29.1 || tempC <= 49)*

*{*

*digitalWrite(blue,HIGH);*

*digitalWrite(green,LOW);*

*digitalWrite(yellow,LOW);*

*digitalWrite(orange,LOW);*

*digitalWrite(red,LOW);*

*}*

*else if (tempC == 49.1 || tempC <= 69)*

*{*

*digitalWrite(yellow,HIGH);*

*digitalWrite(green,LOW);*

*digitalWrite(blue,LOW);*

*digitalWrite(orange,LOW);*

*digitalWrite(red,LOW);*

*}*

*else if (tempC == 69.1 || tempC <= 89)*

*{*

*digitalWrite(orange,HIGH);*

*digitalWrite(green,LOW);*

*digitalWrite(blue,LOW);*

*digitalWrite(yellow,LOW);*

*digitalWrite(red,LOW);*

*}*

*else if (tempC == 89.1 || tempC <= 109)*

*{*

*digitalWrite(red,HIGH);*

*digitalWrite(green,LOW);*

*digitalWrite(blue,LOW);*

*digitalWrite(yellow,LOW);*

*digitalWrite(orange,LOW);*

*}*

*}*

***ANSWER # 1:***

* *Lm35 can read Temperature between* ***−55°C to 150°C.***

***ANSWER # 2:***

* *LM35 is an Analog sensor.*

***ANSWER # 3:***

* *ADC means* ***ANALOG TO DIGITAL CONVERTER****. This device can take analog signals like electric signal and digitize into binary format.*