Assignment 4

The due date for submitting this assignment has passed. Due on 2019-02-27, 23:59 IST.
As per our records you have not submitted this assignment.

1) Which is/are true about microcontroller development boards like STM32F401 and Arduino UNO?

   a. There are analog input pins that use built-in A/D converter.
   b. There are analog output pins that use built-in D/A converter.
   c. There are data pins some of which can also be used as PWM output pins.
   d. There are data pins some of which can be used as interrupt input pins.

   □ (a)  □ (b)  □ (c)  □ (d)

   No, the answer is incorrect.
   Score: 0

   Accepted Answers:
   (a)  (c)  (d)

2) Which of the following is/are true for the mbed programming environment in the context of STM32 board?

   a. The STM32 driver must be first installed on the host computer.
   b. You have to select the correct board type under the “Add Board” option.
   c. The compiled code has to be saved to some folder, and then copy/pasted on the STA drive icon for downloading the code and executing it.
   d. All of the above.

   □ (a)  □ (b)
3) What does the function \texttt{wait(0.8)} do?
   \begin{enumerate}
   \item Produce a delay of 0.8 millisecond.
   \item Produce a delay of 0.8 second.
   \item Set a duty cycle of 80%.
   \item None of the above.
   \end{enumerate}

   \begin{itemize}
   \item (a)
   \item (b)
   \item (c)
   \item (d)
   \end{itemize}

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   \begin{itemize}
   \item (b)
   \end{itemize}

4) What does the statement \texttt{DigitalOut mydevice(D2)} indicate?
   \begin{enumerate}
   \item Configure the port line D2 as a digital output pin, and give it a name “mydevice”.
   \item Configure the interfaced device as a digital output device, and give it a name “D2”.
   \item Enable the A/D converter interface on line D2.
   \item None of these.
   \end{enumerate}

   \begin{itemize}
   \item (a)
   \item (b)
   \item (c)
   \item (d)
   \end{itemize}

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   \begin{itemize}
   \item (a)
   \end{itemize}

5) What is the processor used in the Arduino UNO board?
   \begin{enumerate}
   \item ARM Cortex-M4
   \item ATmega328P
   \item Intel 8051
   \item None of these.
   \end{enumerate}

   \begin{itemize}
   \item (a)
   \item (b)
   \item (c)
   \item (d)
   \end{itemize}

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   \begin{itemize}
   \item (b)
   \end{itemize}

6)
What does the statement `digitalWrite(5, LOW)` in Arduino programming environment indicate?

a. Write the decimal value 5 to the digital output port, which is configured as LOW active.
b. Configure pin number 5 as an A/D converter interface.
c. Write logic 0 to pin number 5.
d. None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(c)

What does the statement `pinMode(5, OUTPUT)` in Arduino programming environment indicate?

a. The digital value 5 must be output to a connected pin.
b. Pin number 5 is configured as a digital output pin.
c. Pin number 5 is configured as a D/A converter output.
d. None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)

Suppose a LED is interfaced to a port line in active low mode (glow when 0 is output) with voltage source of +5V. For passing 10mA current, the current limiting resistance to be used series with the LED must have the value .......... ohm, assuming a voltage drop of 1.2V across the LED in forward biased mode.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 380

1 point
What might happen if a single resistance is connected to the common pin of a 7-segment display unit when interfacing it with a microcontroller?

- a. There will be non-uniform glow for the different digits.
- b. All segments will glow with the same intensity.
- c. The voltage drop across the LEDs will be minimized.
- d. None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

What is/are the advantage of LCD display over LED display?

- a. LCD display consumes lower power as compared to LED display.
- b. LED display consumes lower power as compared to LCD display.
- c. LCD display is commonly used in digital display applications.
- d. LED display is less bright as compared to LCD display.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)
(c)