Assignment 8

The due date for submitting this assignment has passed. Due on 2019-03-27, 23:59 IST.
As per our records you have not submitted this assignment.

1) Which of the following statements is/are not true about accelerometer?
   a. It is typically based on a small-size MEMS sensor.
   b. There is a movable mass, whose displacement is measured using capacitive piezoelectric sensing.
   c. Acceleration can be measured along multiple orthogonal axes.
   d. None of these.

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

2) Which of the following is/are true about the ADSL 335 accelerometer module?
   a. It measures acceleration along three orthogonal axes.
   b. The output voltages X_OUT, Y_OUT and Z_OUT are proportional to acceleration along y and z directions.
   c. It requires a driver to interface with a microcontroller board.
   d. All of these.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)
What does the following statements indicate?

```
AnalogIn x(A0);
...
int x1 = x.read_u16();
```

(a) Read the value from analog input port A0, multiply it by 16, and assign it to variable x.
(b) Read a value from analog input port A0 as unsigned 16-bit integer, and assign it to variable x1.
(c) Read the value from analog input port A0 every 16 microseconds, and assign it to variable x1.
(d) None of these.

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

Why is the following statement included in the experiment on accelerometer?

```
Serial pc (USBTX, USBRX);
```

(a) For serial communication between the microcontroller module and the accelerometer.
(b) For serial communication between the desktop/laptop and the accelerometer.
(c) For serial communication between the microcontroller board and the desktop/laptop.
(d) None of these.

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

For the experiment with the Bluetooth module, how is the communication between microcontroller board and the mobile phone takes place?

(a) Using a priori pairing between the two devices using the Bluetooth protocol.
(b) Using the serial communication links.
(c) By sending suitable commands from the microcontroller board to the Bluetooth module.
(d) None of these.

No, the answer is incorrect.
Score: 0
Accepted Answers: (c)
6) What does the following statements indicate?

```c
Serial Bluetooth (D8,D2);
...
Bluetooth.printf ("Some message \n");
```

a. Send the message to CoolTerm through the serial interface.
b. Send the message to the Bluetooth module through the serial interface.
c. Send the message to the mobile phone through the serial interface.
d. None of these.

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

7) Which of the following is/are not true?

a. Angle of rotation along x-axis is called “roll”.
b. Angle of rotation along y-axis is called “yaw”.
c. Angle of rotation along z-axis is called “pitch”.
d. None of these.

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

8) Which of the following is/are true about the MQ2 gas sensor module?

a. There is an analog output pin that produces a voltage proportional to the intensity of the gas.
b. There is a heater inside the sensor, which must be preheated for proper operation.
c. There is no digital output pin in the sensor module.
d. All of these.

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