

## Course outline

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## Week 05: Assignment 05

The due date for submitting this assignment has passed.

**Due on 2025-08-27, 23:59 IST.**

Assignment submitted on 2025-08-22, 18:41 IST

- Why interoperability in IoT is an issue?

  - IoT nodes are heterogeneous hence they communicate in different protocols
  - IoT nodes are homogeneous and communicate with the same protocol
  - IoT nodes do not communicate.
  - IoT nodes are small.

☒ a.  
☐ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
a.

2) UNSPSC provides a solution for which of the following?

  - Manufacturing
  - Supply Chain
  - Classification
  - Communication

☐ a.  
☐ b.  
☒ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
c.

3) Arduino development boards are equipped with micro-controller processors which are \_\_\_\_\_ with respect to their hardware configurations.

  - closed source
  - open source
  - forward source
  - up sourced

☐ a.  
☒ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
b.

4) Translation of inter-device communication forms an important part in solving device interoperability.

  - True
  - False

☒ a.  
☐ b.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
a.

5) With respect to the different wireless communication protocols such as Zigbee, Bluetooth, GPRS, 6LoWPAN and WiFi, which of the following terms can be associated with?

  - Homogeneity
  - Heterogeneity
  - Self Service
  - All of the given

☐ a.  
☒ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
b.

6) Which among the following are valid Arduino datatypes?

  - byte
  - char
  - Boolean
  - All of the given

☐ a.  
☐ b.  
☐ c.  
☒ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
d.

7) What is the purpose of the delay() function in Arduino programming?

  - To speed up the execution
  - To terminate the program
  - To reset all parameters
  - To make the program go to sleep for a certain duration.

☐ a.  
☐ b.  
☐ c.  
☒ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
d.

8) Consider the following Arduino code snippet

```
String str = "HelloWorld";

String ptr = str.ToUpperCase();

What will be the value of String ptr?
```

  - HelloWorld
  - helloworld
  - HELLOWORLD
  - WORLDHELLO

☐ a.  
☐ b.  
☒ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
c.

9) What does the following code snippet do in interfacing a servo motor with the Arduino MEGA board?

```
int servoPin = 12;
```

  - Declares pin for connecting servo motor
  - Declares pin for providing power to MEGA board
  - Declares pin for Ground supply for servo motor
  - None of these

☒ a.  
☐ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
a.

10) State True or False.

Statement: "The "Verify" option in the Arduino IDE checks the code for compilation errors."

  - True
  - False

☒ a.  
☐ b.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
a.

11) The tool used to select a particular COM port for connecting Arduino to a serial connector is called a sketch.

  - True
  - False

☐ a.  
☒ b.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
b.

12) In general, with respect to any sensor that can be connected to an Arduino board, which of the following is correct?

  - The sensor has infinite number of connecting pins
  - The sensor will have at least 3 pins (1 +Vcc, 1 GND and 1 Data pin)
  - The sensor need not connect to the Arduino board.
  - The sensor will always have exactly 5 pins.

☐ a.  
☒ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
b.

13) You connect the +Vcc PIN of a sensor with which of the corresponding PIN of Arduino board.

  - 3V
  - GND
  - PIN A5
  - PIN CTX

☒ a.  
☐ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
a.

14) Servo is a type of \_\_\_\_\_.

  - Sensor
  - Actuator
  - Modifier
  - Pacifier

☐ a.  
☒ b.  
☐ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
b.

15) While uploading a sketch to an Arduino board, which of the following should be checked?

  - Board
  - Serial Port
  - Both Board and Serial Port
  - Neither Board nor Serial Port.

☐ a.  
☐ b.  
☒ c.  
☐ d.

Yes, the answer is correct.  
Score: 1  
Accepted Answers:  
c.