Introduction to

Internet of Things

Assignment-Week 5

TYPE OF QUESTION: MCQ/MSQ

Number of questions: **15** **Total marks: 15 X 1= 15**

QUESTION 1:

Why interoperability in IoT is an issue?

a. IoT nodes are heterogeneous hence they communicate in different protocols

b. IoT nodes are homogeneous and communicate with the same protocol

c. IoT nodes do not communicate.

d. IoT nodes are small.

Correct Answer: a. IoT nodes are heterogeneous hence they communicate in different protocols

Detailed Solution: Refer Lecture 21@8:30.

QUESTION 2:

UNSPSC provides a solution for which of the following?

a. Manufacturing

b. Supply Chain

c. Classification

d. Communication

Correct Answer: c. Classification

Detailed Solution: Refer Lecture 21@16:40.

QUESTION 3:

Arduino development boards are equipped with micro-controller processors which are _____ with respect to their hardware configurations.

a. closed source

b. open source

c. forward source

d. up sourced

Correct Answer: b. open source

Detailed Solution: Refer Lecture 22@5:48.

QUESTION 4:

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

a. True

b. False

Correct Answer: a. True

Detailed Solution: Refer Lecture 21@23:43.

QUESTION 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?

a. Homogeneity

b. Heterogeneity

c. Self Service

d. All of the given

Correct Answer: b. Heterogeneity

Detailed Solution: Refer Lecture 21@9:46.

QUESTION 6:

Which among the following are valid Arduino datatypes?

a. byte

b. char

c. Boolean

d. All of the given

Correct Answer: d. All of the given

Detailed Solution: Refer Lecture 22@18:28.

QUESTION 7:

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

a. To speed up the execution

b. To terminate the program

c. To reset all parameters

d. To make the program go to sleep for a certain duration.

Correct Answer: d. To make the program go to sleep for a certain duration.

Detailed Solution: Refer Lecture 22@21:19.

QUESTION 8:

Consider the following Arduino code snippet

```
String str = “HelloWorld”;

String ptr = str.ToUpperCase();
```

What will be the value of String ptr?

a. HelloWorld

b. helloworld

c. HELLOWORLD

d. WORLDHELLO

Correct Answer: c. HELLOWORLD

Detailed Solution: Refer Lecture 23@8:10.

QUESTION 9:

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

int servoPin = 12;

a. Declares pin for connecting servo motor

b. Declares pin for providing power to MEGA board

c. Declares pin for Ground supply for servo motor

d. None of these

Correct Answer: a. Declares pin for connecting servo motor

Detailed Solution: int servoPin = 12; Declares pin for connecting servo motor. Refer Lecture 25@07:54.

QUESTION 10:

State True or False.

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

a. True

b. False

Correct Answer: a. True

Detailed Solution: The “Verify” option in the Arduino IDE checks the code for compilation errors. Refer Lecture 24.

QUESTION 11:

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

a. True

b. False

Correct Answer: b. False

Detailed Solution: Sketch in Arduino is the program that is coded in Arduino IDE. Refer lecture 22, ppt No. 9

QUESTION 12:

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

a. The sensor has infinite number of connecting pins

b. The sensor will have at least 3 pins (1 +Vcc, 1 GND and 1 Data pin)

c. The sensor need not connect to the Arduino board.

d. The sensor will always have exactly 5 pins.

Correct Answer: b. The sensor will have at least 3 pins (1 Vcc, 1 GND and 1 Data pin)

Detailed Answer: This follows from general sensor design principles. Refer Lecture 24@6:15.

QUESTION 13:

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

a. 3V

b. GND

c. PIN A5

d. PIN CTX

Correct Answer: a. 3V

Detailed Solution: As per standard Arduino interfacing. Refer Lecture 24.

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QUESTION 14:

Servo is a type of _____.

a. Sensor

b. Actuator

c. Modifier

d. Pacifier

Correct Answer: b. Actuator

Detailed Solution: Refer Lecture 25.

QUESTION 15:

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

a. Board

b. Serial Port

c. Both Board and Serial Port

d. Neither Board nor Serial Port.

Correct Answer: c. Both Board and Serial Port

Detailed Solution: Refer Lecture 24 and 25, specifically on the part of uploading sketches to the Arduino board.

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