



Introduction to

Internet of Things

Assignment-Week 1

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 15

Total marks: 15 X 1= 15

QUESTION 1:

In the context of IoT, what is the meaning of ubiquitous?

- a. Spreading widely throughout
- b. Present everywhere
- c. Countless
- d. Uncontrollable

Correct Answer: b. Present everywhere

Detailed Solution: Ubiquitous refers to presence everywhere or in many places especially simultaneously. Another word for it is omnipresence. (Please refer Lecture 1 @9:41)

QUESTION 2:

Typical IoT networks has to support the existence of intermittent connectivity. Which one of the following is a characteristic of intermittent connectivity?

- a. Controlled network drops
- b. No network drops
- c. Random/uncontrolled network drops
- d. Continuous connection

Correct Answer: c. Random/uncontrolled network drops

Detailed Solution: Intermittent connectivity refers to random loss of connections due to mobility, environment factors, and others. (Please refer Lecture 1 @20:21)



QUESTION 3:

In a typical IoT deployment, which of the following is true with respect to cardinality of each type mentioned below?

- a. Applications > Smart Systems > Sensors
- b. Sensors > Applications > Smart Systems
- c. Smart Systems > Sensors > Applications
- d. Sensors > Smart Systems > Applications

Correct Answer: d. Sensors > Smart Systems > Applications

Detailed Solution: It is expected that there will be trillions of sensors, billions of smart devices, and millions of applications. (Please refer Lecture 1 @30:21)

QUESTION 4:

In the IoT connectivity layers, the service providers are responsible for which of the following services?

- a. Services
- b. Local connectivity
- c. Global connectivity
- d. None of the above

Correct Answer: b. Local connectivity

Detailed Solution: The service providers are responsible for the local connectivity. (Please refer Lecture 1 @32:11)



QUESTION 5:

Which of the following uses point-to-point communication?

- a. Internet of Things (IoT)
- b. Machine-to-Machine (M2M) communications
- c. Cyber-Physical Systems (CPS)
- d. Web-of-Things (WoT)

Correct Answer: b. Machine-to-Machine (M2M) communications

Detailed Solution: M2M is peer-to-peer/point-to-point communications. (Please refer Lecture 1 @32:26)

QUESTION 6:

Which of the following enables access and control over IoT resources using web technologies?

- a. Machine-to-Machine (M2M) communications
- b. Cyber-Physical Systems (CPS)
- c. Web-of-Things (WoT)
- d. None of these

Correct Answer: c. Web-of-Things (WoT)

Detailed Solution: WoT allows access to IoT through web technologies for the users. (Please refer Lecture 1 @34:26)



QUESTION 7:

Which of the following terminologies is most suitable for cyber-physical systems in context of IoT?

- a. Scale
- b. Autonomy
- c. Environment
- d. Synthesis

Correct Answer: b. Autonomy

Detailed Solution: Cyber-physical systems need autonomy for making smart decisions and executing collaborative tasks. (Please refer Lecture 1@36:27)

QUESTION 8:

Fill in the blank:

The _____ is responsible for connecting the IoT LAN to a WAN and then to the Internet.

- a. IoT LAN
- b. IoT Proxy
- c. IoT Node
- d. IoT Gateway

Correct Answer: d. IoT Gateway

Detailed Solution: IoT Gateway connects the IoT LAN to a WAN to the Internet. It can implement several LANs and WANs. (Please refer Lecture 2@3:11)

QUESTION 9:

Under Unique Local Addresses (ULA), what happens in case of unavailability of the pre-assigned local address when a device migrates from one LAN to another?

- a. Use same local address but different MAC address
- b. Do not allow networking to that device
- c. Assign new available local address
- d. Disconnect previously existing device



Correct Answer: c. Assign new available local address

Detailed Solution: In case of unavailability, the device will be assigned a new local address and the gateway will be updated.

QUESTION 10:

True or False?

Changes in network prefixes does not affect the remote anchor point to which the IoT gateways are attached.

- a. True
- b. False

Correct Answer: a. True

Detailed Solution: Remote anchor points are immune to changes in network prefixes. (Please refer Lecture 2@11:01)

QUESTION 11:

What is a device called that detects or measures a physical property?

- a. Sensors
- b. Actuators
- c. Nodes
- d. Users

Correct Answer: a. Sensors

Detailed Solution: Sensors detect or measure changes in physical properties and environments. (Please refer Lecture 3@3:25)



QUESTION 12:

Which of the following may be referred to as a transducer?

- a. Sensor
- b. Actuator
- c. Neither sensor nor actuator
- d. Both sensor and actuator

Correct Answer: d. Both sensor and actuator

Detailed Solution: Transducers cover both sensors and actuators. (Please refer

Lecture 3@11:15)

QUESTION 13:

Which of the following types of sensors may be identified when categorized based on output?

- a. Analog
- b. Scalar
- c. Vector
- d. Multimedia

Correct Answer: a. Analog

Detailed Solution: Based on output, sensors may be classified as analog and digital. (Please refer Lecture 3@13:00)

QUESTION 14:

Which IoT component is responsible for hosting analytics on the data?

- a. Things
- b. Local network
- c. Backend Services
- d. Internet

Correct Answer: c. Backend services



Detailed Solution: The backend services are responsible for providing/performing analytics on the data. (Please refer Lecture 5@7:21)

QUESTION 15:

Typically, how many categories (application-specific) is IoT classified into?

- a. 1
- b. 2
- c. 3
- d. 4

Correct Answer: b. 2

Detailed Solution: IoT may be classified into industrial and consumer IoT. (Please refer Lecture 5@17:51)

*******END*******