



**Introduction to
Internet of Things**

Assignment-Week

10

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 15

Total marks: 15 X 1 = 15

QUESTION 1:

Which among the following are active connected entities in a holistic smart city environment?

- a. Police station
- b. Banks
- c. Transport centers
- d. All of the above**

Correct Answer: d. All of the above

Detailed Solution: Refer Lecture 46@4:45.

QUESTION 2:

With the help of ICT tools, it is possible to increase and improve citizen participation for a good governance based smart city

- a. True**
- b. False



Correct Answer: a. True

Detailed Solution: Refer Lecture 46@11:20.

QUESTION 3:

Which among the following is a possible challenge with respect to smart parking lots?

- a. Efficient auto-routing of vehicles
- b. Locating current vacant spots
- c. Auto-charging of vehicles
- d. All of the given

Correct Answer: d. All of the given

Detailed Solution: All of the given options are indeed potential challenges as well. Refer Lecture 46@24:37.

QUESTION 4:

What refers to combining information from multiple sensor sources?

- a. Information Collection
- b. Multi-sensor deployment
- c. Multi-sensor dissemination



d. Multi-sensor data fusion

Correct Answer: d. Multi-sensor data fusion



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(Please refer Lecture 47@6:52)

QUESTION 5:

Which of the following is one of the theory of evidence-based mathematical methods of data fusion?

- a. Belief function
- b. Bayesian analysis
- c. ANN
- d. None of these

Correct Answer: a. Belief function

Detailed Solution: Belief function is one of the theory of evidence-based mathematical methods of data fusion. (Please refer Lecture 47 @11:49)

QUESTION 6:

With respect to data fusion from multiple IoT sensors, does outlier data present with a challenge?

- a. No
- b. Yes

Correct Answer: b. Yes

Detailed Solution: Refer Lecture 47@8:13.

QUESTION 7:

Which of the following is a phase of ICV development?



- a. Based on 2G
- b. Based on 4G LTE
- c. Vehicles connected to cloud
- d. All of these

Correct Answer: d. All of these

Detailed Solution: The phases of ICV development: Phase 1: Based on 2G, Phase 2: Based on 4G LTE, Phase 3: Vehicles connected to cloud (Please refer Lecture 50@12:28)

QUESTION 8:

With which of the following can the decision-making gap between the sensors and the actuators be bridged.

- a. SDN
- b. OpenStack Horizon
- c. Artificial Intelligence (AI)
- d. Arduino IDE

Correct Answer: c. Artificial Intelligence (AI)

Detailed Solution: Refer Lecture 47@12:14 onwards.

QUESTION 9:



Which of the following statements are true about the HAN standards?

Statement I: Physical and MAC layers are defined by IEEE802.15.4.

Statement II: Network layer is defined by Zigbee.

Statement III: Application layer is defined by IEEE802.15.4

- a. Statements I and II
- b. Statements I and III
- c. Statements II and III
- d. Statements I, II and III

Correct Answer: a. Statements I and II

Detailed Solution: Physical and MAC layers are defined by IEEE802.15.4. Network layer and Application layers are defined by Zigbee. (Please refer Lecture 48@16:11)

QUESTION 10:

What is UPnP?

- a. Uninterrupted Post-messaging
- b. Universal Pull Streaming
- c. Universal Plug and Play
- d. Unhindered Public Networking

Correct Answer: c. Universal Plug and Play

Detailed Solution: Refer Lecture 48@12:53.



QUESTION 11:

What are the disadvantages of V2X communication?

- a. Increased traffic safety
- b. Tracking of movement**
- c. Efficient use of fuel
- d. None of these

Correct Answer: b. Tracking of movement

Detailed Solution: Disadvantages of V2X communication includes tracking of movement, violation of privacy, loss of data control, etc. (Please refer Lecture 50@21:04)

QUESTION 12:

Mobility of vehicles in a V2X environment limit which of the following that restricts the use of TCP/IP for V2X communication?

- a. Communication between vehicular infrastructure
- b. Localization of data**
- c. Backbone routing in IP core networks
- d. Human-vehicle interaction

Correct Answer: b. Localization of data

Detailed Answer: TCP/IP works best with localized data, which is not present in V2X environments. This restricts the use of TCP/IP for V2X communication. Refer Lecture 49@12:33 onward.

QUESTION 13:



In VANET, link durations are long and easily scaled-up to include all the vehicles on the road?

a. True

b. False

Correct Answer: b. False

Detailed Solution: Link durations are short due to the highly dynamic nature of VANETs.

(Please refer Lecture 49 @18:00)

QUESTION 14:

CCN is derived from ICN architecture.

a. True

b. False

Correct Answer: a. True

Detailed Solution: CCN (Content Centric Networking) is derived from Information Centric Networking (ICN) (Please refer Lecture 49@15:32).

QUESTION 15:

In an ICV environment, efficient cooperation between different vehicles on a highway can lead to a safer scenario with respect to collision and avoiding incoming traffic.

a) True

b) False

Correct Answer: a. True

Detailed Solution: Refer Lecture 50@2:00.



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