



**Introduction to
Internet of Things**

Assignment-Week

11

TYPE OF QUESTION:MCQ/MSQ

Number of questions:15

Total marks: 15 X 1= 15

QUESTION 1:

What are some of the other names of the smart grids?

- a. Electricity with a brain
- b. Energy internet
- c. Electronet
- d. **All of these**

Correct Answer: d. All of these

Detailed Solution: Smart grids are also known as Electricity with a brain, Energy internet, and Electronet. (Please refer Lecture 51 @8:33)

QUESTION 2:

Smart Grid follows which type of the flow of energy?

- a. **Bidirectional**
- b. Unidirectional
- c. All of these
- d. None of these

Correct Answer: a. Bidirectional

Detailed Solution: Smart grid is a modernized grid that enables bidirectional flow of energy. (Please refer Lecture 51 @9:43)



QUESTION 3:

Which of the following is not a benefit associated with smart grids?

- a. Efficient transmission of electricity
- b. Lower electricity rates
- c. Unreliable and insecure electricity
- d. Improved security

Correct Answer: c. Unreliable and insecure electricity

Detailed Solution: Smart Grids provide efficient transmission of electricity, lower electricity rates and Improved security. (Please refer Lecture 51 @11:26)

QUESTION 4:

Which of the following is a component of smart grid communication?

- a. Gateways
- b. Smart meters
- c. MDMSs
- d. All of these

Correct Answer: d. All of these

Detailed Solution: The components of Smart Grid are Smart meters, Gateways, DAUs and MDMSs (Please refer Lecture 52 @12:16)

QUESTION 5:

Fill in the blank.

_____ can be used as an energy source in on-peak hours.

- a. PMUs
- b. DAUs
- c. PEVs
- d. None of these

Correct Answer: c. PEVs

Detailed Solution: PEVs or Plug-In Electric Vehicles can be used as an energy source in on-peak hours(Please refer Lecture 52 @6:29)



QUESTION 6:

Which of the following is a type of Dynamic System Attacks?

- a. Replay Attacks
- b. Dynamic data injection attacks
- c. Covert attacks
- d. All of these

Correct Answer: d. All of these

Detailed Solution: Replay Attacks, Dynamic data injection attacks and Covert attacks are all types of Dynamic System Attacks (Please refer Lecture 52@19:55)

QUESTION 7:

Which of the following statements are true about gateways?

Statement I: Each gateway connects a few closely located smart meters.

Statement II: Gateways communicate mostly based on WiFi.

Statement III: They help in two-way communication.

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

Correct Answer: d. Statements I, II and III

Detailed Solution: The gateways connect a few closely located smart meters, communicate mostly on WiFi and help in two-way communication. (Please refer Lecture 52@14:11)



QUESTION 8:

Fill in the blank.

_____ is a centralized coordinator for smart grid communication.

- a. Gateway
- b. Smart meter
- c. PMU
- d. **MDMS**

Correct Answer: d. MDMSs

Detailed Solution: MDMS is a centralized coordinator for smart grid communication. (Please refer Lecture 52@15:32)

QUESTION 9:

Fill in the blank.

_____ are available protocols for smart home appliances.

- a. C-Bus
- b. DECT
- c. EnOcean
- d. **All of these**

Correct Answer: d. All of these

Detailed Solution: C-Bus, DECT, EnOcean and Universal Powerline Bus (Please refer Lecture 52@12:35)



QUESTION 10:

Fill in the blank. IIoT is a network of_____.

- a. Physical objects
- b. Systems
- c. Platforms
- d. All of the above

Correct Answer: d. All of the above

Detailed Solution: IIoT is a network of physical objects, systems, platforms and applications (Please refer Lecture 53@15:24)

QUESTION 11:

IIoT is based on Rip & Replace approach.

- a. True
- b. False

Correct Answer: b. False

Detailed Solution: IIoT is based on wrap & re-use approach. (Please refer Lecture 53@9:53)

QUESTION 12:

Which of the following happened in the 1st Revolution?

- a. Mass production
- b. Internet evolution
- c. Automation
- d. None of these

Correct Answer: d. None of these

Detailed Solution: Mass production, internet evolution, automation happened in forth revolution. (Please refer Lecture 53@10:06)



QUESTION 13:

Which of the following is a challenge of IIoT?

- a. Worker health and safety
- b. Environmental production
- c. Optimized operations
- d. All of these

Correct Answer: d. All of these

Detailed Solution: Worker health and safety, environmental production and optimized operations are all the safety challenges of IIoT. (Please refer Lecture 54@15:15)

QUESTION 14:

Monitoring and restoration of the traditional electrical grid is done manually.

- a. True
- b. False

Correct Answer: a. True

Detailed Solution: Monitoring and restoration of the traditional electrical grid is done manually (Please refer Lecture 51@5:34)

QUESTION 15:

What is Hadoop used in?

- a. Distributed processing of large datasets
- b. Large clusters of computers
- c. All of these
- d. None of these

Correct Answer: c. All of these

Detailed Solution: Hadoop is used for distributed processing of large datasets across Large clusters of computers (Please refer Lecture 55@23:18)