

IOT Part1

1-What is the internet of things(iot)?

is the integration of objects with the world of the internet, by attaching hardware (sensors) or/and software to make these objects smart and so be able to communicate with each other and participate effectively in all aspects of daily life.

2-What are the iot advantages and disadvantages?

IOT Advantages

- Dynamic control of industry & daily life
- Improve the resource utilization ratio
- Integrating human society & physical systems
- Flexible configuration
- Universal transport & internetworking
- Acts as technologies integrator

IOT Disadvantages

- Safety
- Security
- Compatibility

Complexity

3-How do you secure an IOT solution?

- Create more effective and secure password policies.
- Use IOT PKI Security Methods.
- Authenticate the IOT Devices.
- Secure the IOT Network.
- Use encrypted protocols to secure communications.

4-Why do we need IOT security?

Encryption can help prevent unauthorized access to data and devices. This helps maintain data integrity and prevent data sniffing by hackers so you must use Authentication.

5-What are the IOT Challenges?

- Sensing a complex environment
- Connectivity
- Iot is complex
- Cloud is important

6-What are the IOT Characteristics?

- Ambient intelligence
- Event Driven
- Flexible Structure
- Complex access technology
- Semantic Sharing

7-What is meant by Complex access technology?

means that there's several kinds of media such as vehicle stone that they need different access technologies.

8-What is different between Flexible Structure and Semantic Sharing in iot?

Flexible Structure: means that hundreds and thousands of nodes will be disable and will be set to run

Semantic Sharing: is the machine can rend and send by themselves. No need to tell human beings

9-What are the Problems and security challenges in iot security?

- Need new devices for endpoint security, new firewalls, embedded OS, new software & etc.
- It is not possible to support AV (anti-virus) on every device.
- Need new transport protocols for making network security difficult.
- Applying security analysis leads to much more network traffic.
- Bad news for large enterprises as network security is already complex and complicated for most of enterprises.

10-What are the IOT Applications?

- | | |
|--------------|------------|
| -Education | -Food |
| -Management | -Retail |
| -Health Care | -Logistics |

MCQ

1-IOT Characteristics is

- A) Event Driven
- B) Semantic Sharing
- C) Flexible Structure
- D) All

Answer: D

2-..... means that hundreds and thousands of nodes will be disable and will be set to run

- A) Event Driven
- B) Semantic Sharing
- C) Flexible Structure
- D) All

Answer: C

3-..... Variety of wired and wireless connectivity standards are required to enable different application needs

- A) Connectivity
- B) complex
- C) Cloud
- D) Semantic Sharing

Answer: A

4-..... is the technology being a concerned with safeguarding connected devices and networks in the internet of things.

- A) IOT complexity
- B) IOT security
- C) IOT safety
- D) IOT compatibility

Answer: B

5-.....refers to electronic environments that are sensitive and responsive to the presence of people

- A) Event Driven
- B) Semantic Sharing
- C) Flexible Structure
- D) Ambient intelligence

Answer: D

6-..... is to design the scheme depending on the need

- A) Event Driven
- B) Semantic Sharing
- C) Flexible Structure
- D) Ambient intelligence

Answer: A

7-..... is the machine can rend and send by themselves. No need to tell human beings

- A) Event Driven
- B) Semantic Sharing
- C) Flexible Structure
- D) Ambient intelligence

Answer: B

8-Cloud is important in iot where iot applications require end-to-end solutions including cloud services

- A) true
- B) false

Answer: A

9- IoT is the concept of connecting any device with an on and off switch to the network of internet to make it able to communicate with other devices and objects within this network.

- A) true
- B) false

Answer: A

10- AMI is dependent & intelligent entities will act in full interoperability & will be able to auto-organize themselves depending on The operations.

- A) true
- B) false

Answer: B