

# Internet Of Things-XII

## (MCQs + Q&A)

1. Which One is not an element of IOT?
  - a) People
  - b) Process
  - c) Security**
  - d) Things
  
2. Which risks and challenges should be considered in the Internet of Everything?
  - a) Privacy and security
  - b) Energy consumption
  - c) Network congestion
  - d) All of the above**
  
3. What is IIOT?
  - a) Information Internet of Things
  - b) Industrial Internet of Things**
  - c) Innovative Internet of Things
  - d) None of the above
  
4. Who invented the term the Internet of Things?
  - a) Bill Gates
  - b) Kevin Ashton**
  - c) Steve Jobs
  - d) McDonald
  
5. The huge number of devices connected to the Internet of Things have to communicate automatically, not via humans. What is this called?
  - a) Bot to Bot (B2B)
  - b) Machine to Machine (M2M)**
  - c) InterCloud
  - d) SkyNet
  
6. What is the name of the first recognized IOT device?
  - a) Smart Watch
  - b) ATM**
  - c) Radio
  - d) Video game

7. \_\_\_\_\_ is being used by Internet of Things.
- a) **Radio Identification Technology**
  - b) Satellite
  - c) Cable
  - d) Broadband
8. When was the term IOT first coined?
- a) 1998
  - b) **1999**
  - c) 2000
  - d) 2001
9. Which is not one of the features of IOT?
- a) Remotely controllable
  - b) Programmable
  - c) Can turn themselves off if necessary
  - d) **All are features**
10. How many devices are estimated to be connected to the IOT by 2020?
- a) Approx.....2 millions
  - b) Approx.....20 millions
  - c) Approx.....75 millions
  - d) **Approx.....100 millions**
11. Which is NOT one of the concerns of the IOTs?
- a) Data storage standards
  - b) **Efficiency**
  - c) Privacy concerns
  - d) Cyber security

**12. What Impacts Will The Internet Of Things (iot) Have On Infrastructure And Smart Cities Sector?**

Ans. The capabilities of the smart grid, smart buildings, and ITS combined with IoT components in other public utilities, such as roadways, sewage and water transport and treatment, public transportation, and waste removal, can contribute to more integrated and functional infrastructure, especially in cities.

For example, traffic authorities can use cameras and embedded sensors to manage traffic flow and help reduce congestion. IoT components embedded in street lights or other infrastructure elements can provide functions such as advanced lighting control, environmental monitoring, and even assistance for drivers in finding parking spaces. Smart garbage cans can signal waste removal teams when they are full, streamlining the routes that garbage trucks take.

This integration of infrastructure and service components is increasingly referred to as smart cities, or other terms such as connected, digital, or intelligent cities or communities. A number of cities in the United States and elsewhere have developed smart-city initiatives.

### **13. How Wireless Communications Might Affect The Development And Implementation Of The Internet Of Things?**

**Ans.** Many observers believe that issues relating to access to the electromagnetic spectrum will need to be resolved to ensure the functionality and interoperability of IoT devices. Access to spectrum, both licensed and unlicensed, is essential for devices and objects to communicate wirelessly. IoT devices are being developed and deployed for new purposes and industries, and some argue that the current framework for spectrum allocation may not serve these new industries well.

### **14. How Is Industrial Internet Of Things (iiot) Different From The Internet Of Things (iot)?**

**Ans.** There are two perspectives on how the Industrial IoT differs from the IoT.

The first perspective is that there are two distinctly separate areas of interest. The Industrial IoT connects critical machines and sensors in high-stakes industries such as aerospace and defense, healthcare and energy. These are systems in which failure often results in life-threatening or other emergency situations. On the other hand, IoT systems tend to be consumer-level devices such as wearable fitness tools, smart home thermometers and automatic pet feeders. They are important and convenient, but breakdowns do not immediately create emergency situations.

The second perspective sees the Industrial IoT as the infrastructure that must be built before IoT applications can be developed. In other words, the IoT, to some extent, depends on the Industrial IoT.

For example, many networked home appliances can be classified as IoT gadgets, such as a refrigerator that can monitor the expiration dates of the milk and eggs it contains, and remotely-programmable home security systems. On the Industrial Internet side, utilities are enabling better load balancing by taking power management decisions down to the neighborhood level. What if they could go all the way down to individual appliances? Suppose users could selectively block power to their devices during high-demand scenarios? Your DVR might power down if it wasn't recording your favorite show, but your refrigerator would continue to work, resulting in less food spoilage. You could set your washer and dryer to be non-functional, and make an exception with a quick call from your smartphone. Rolling blackouts could be a thing of the past.

Innovators are only beginning to imagine the possibilities that may be achieved by taking advantage of devices and systems that can communicate and act in real time, based on information they exchange amongst themselves. As the Industrial IoT becomes better defined and developed, more impactful IoT applications can and will be created.

#### **Internet of Things:-**

Everyday consumer-level devices connected to one another and made smarter and slightly self-aware.

Examples: consumer cell phone, smart thermostat

#### **Industrial Internet of Things:-**

Equipment and systems in industries and businesses where failures can be disastrous.

Examples: individual health monitors and alert systems in hospitals.

### **15. How Will Internet Of Things (iot) Impact Sustainability Of Environment Or Business?**

**Ans.** Internet of Things (IoT) can significantly reduce carbon emissions by making business and industry more efficient. "By managing street lights more efficiently you can save approximately 40% of energy used to make them run," Will Franks says.

ill Ruh, vice-president of GE Software, agrees. “We have created 40 applications,” says Ruh. “One of these, PowerUp, uses sensors to collect weather and performance data from wind turbines to enable operators to generate up to 5% more electricity without physically changing it, which generates 20% more profit for our customers.”

#### **16. What Impacts Will The Internet Of Things (iot) Have On Economic Growth?**

**Ans.** Several economic analyses have predicted that the IoT will contribute significantly to economic growth over the next decade, but the predictions vary substantially in magnitude. The current global IoT market has been valued at about \$2 trillion, with estimates of its predicted value over the next five to ten years varying from \$4 trillion to \$11 trillion. Such variability demonstrates the difficulty of making economic forecasts in the face of various uncertainties, including a lack of consensus among researchers about exactly what the IoT is and how it will develop.

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