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IoT Interview Questions for Freshers

What is IoT?

IoT is an abbreviation of the term "**Internet of Things**". It is the technique whereby the objects around us can communicate with each other to make our lives smoother. It allows bringing speed and automation to the system by establishing a network between different gadgets and day-to-day items. It has a wide impact on many sectors including the sector of health, transportation, and law enforcement. It will be used broadly in offices and buildings to ensure safety. IoT will be helpful in preventing accidents on roads by the effective use of sensors. It is the concept of making everything smart and smooth. The businesses that have climbed the ladder of Internet Of Things (IoT) are set to see exponential growth in their productivity as everything today is moving towards automation and so will move more faster in this direction. This is a big opportunity for every big and small business that have not yet jumped to the IoT for their expansion. The idea is very advanced and will bring a revolution to the functioning of our world.

In an interview, you will be asked questions about IoT to let the interviewer know the pre-existing knowledge of IoT in your mind. He wants to make sure that you are well prepared for the interview and so for the job they are offering to you. Here are some important **IoT Interview Questions** that will help you crack the interview with a loud smile. These questions have been collected to benefit you to go prepared for the interview. You can also download here the **IoT Interview Questions PDF**.

Q1. What do you understand by IoT ?

IoT is an abbreviated form of 'Internet Of Things'. It is all about the connectivity of day to day gadgets and devices to the internet such that those gadgets and objects can communicate with each other and thereby function together. Also, they can be managed remotely and controlled with ease.

Q2. How will the Internet Of Things (IoT) impact our lives? Explain with example.

When objects will be capable of communicating with each other, they will help in making our lives simpler and smarter. It will save our time by allowing devices to be automated. Taking an example, when you return home from your office and turn on the switch of your room lights, it will give a signal to your geezer to automatically start heating the water.

Meanwhile, a signal is already sent to your coffee machine to prepare coffee for you and all this will be done automatically with ease, making you feel relaxed. IoT (Internet of Things) plays a great role in speeding up our daily routine and hence making the process of advancement to be faster.

Q3. Explain the main components of the system of IoT ?

There are three major components of IoT systems :

1)-Sensors Devices

2)-Connectivity

3)-Data Processing

Sensors: Sensors have the crucial task of collecting very tiny data in its range. The data collected may vary from large to small and complex to the simplicity of the data. Devices are capable of inbound more than a single sensor and can have a number of sensors. For example, a smartwatch can sense the temperature, is capable to sense heartbeat and when connected with smart shoes it can count steps and distance the person walked.

Connectivity: After the sensors, I have done the job of collecting data, the next task is to send the collected data to a cloud infrastructure. For this, a medium is required. There are many mediums which can help seniors to connect to the cloud. Sum of many such mediums includes Wi-fi, Cellular networks, Bluetooth and satellite networks. It is very significant to after the best look liberty choice for the system of IoT because of different specifications of every choice.

Data Processing: After the data is on the cloud, now it's the software that processes the obtained data. It is necessary to process the data so that raw data could be converted into useful and helpful information. This could be done through manipulation of the data that has arrived on the cloud through connectivity networks.

Q4. What are the concerns related to security in the Internet Of Things (IoT)?

The devices which are connected to each other through IoT are prone to be hacked and hackers could use cloud endpoints for attacking the server. Proper security should be maintained by the professionals behind the security task.

Q5. How is the Internet Of Things (IoT) network different from the Wireless Sensor Network (WSN)?

WSN: Wireless Sensor Network is a technology that is used under IoT (Internet Of Things) System. It was basically started developing for military purposes but are today used widely in industrial and machinery. It need not necessarily be connected to the internet, it has the functions beyond it.

IoT : Internet Of Things is a concept way broader that involves the connectivity between different gadgets and daily objects. IoT helps to make human life easier by bringing automation to the system.

Q6. When talking about the Internet Of Things, talk about 'smart city'.

With the ability to create a connection and establish a network among daily objects and gadgets, automation comes along the line. Roadways, railways and other transportation mediums connected for the safety and for or increasing the speed. The drainage system, buildings, and other objects to establish a medium for connection to bring speed to human's life. Traffic control could be managed using the technology of IoT by the traffic police department. Buildings equipped with sensors, and where doors and windows are also sensor friendly is a smart city.

Q7. How does Internet Of Things (IoT) vary from Industrial Internet Of Things (IIoT) ? Give benefits of IIoT.

The main characteristic difference between IoT (Internet Of Things).and IIoT (Industrial Internet Of Things) is their usage. IIoT have a usage in the industrial sector whereas IoT is widely used for consumers.

Benefits of IIoT: It can help industries to be scalable and enhance performance. IIoT is cost-saving and connectivity aids industries to grow substantially and it also contributes to the safety of systems.

Q8. Name the person who coined the title 'Internet Of Things'.

The title 'Internet Of Things' was coined in the year 1999 by **Kevin Sir Frederick**. It was initially known by 'embedded internet' but later came to be known as the **Internet of things**.

Q9. What are the points that will contribute to the success of the Internet Of Things (IoT) in the coming future?

IoT can improve the performance of the companies with ensuring its security to give higher output. Different business sectors are on the go to gain better profit using IoT implemented to their business as it makes the business more productive by making the process more efficient. The ecosystem of the Internet Of Things is an awesome idea to Revolutionise the working of objects and gadgets around us.

Q10. What is Internet Of Everything?

Internet Of Everything is a network or connection set up between humans, things, procedure, and information. Human will tend to stay attached to gadgets and machines such as computers and smartphones. The procedure will turn towards more automation by getting control over the gadgets in no time. Things include sensors, actuators and many more gadgets that could establish a connection to any object.

Q11. How will IoT impact the businesses?

Companies are focused to increase the speed to take the products to the market and to grow their performance. With automation and evolving systems, a company may see a huge high jump in its efficiency. There is a great opportunity for small businesses to jump for exponential growth.

Q12. What difference will Internet Of Things bring to the transportation sector?

Transportation has already been touched by the internet of things. The sector is becoming more connected adding to its advantage. GPS is itself a very helpful factor in vehicles. The speed in the transportation sector will directly imply the speed in human life. The exchange of goods will happen at a faster speed and the safety will be taken into consideration at the same time. Already the concept of driverless vehicles has turned out to be hot

Q13. What is the difference between Raspberry Pi and Arduino?

Raspberry pi is a computer which is as the size of a credit card but is sufficient to perform operations like that of a normal computer. Arduino is an electronic platform and is open-source. It is efficient in taking the input from sensors. Raspberry pi is considered a little higher when compared to Arduino for its superior CPU processing and other factors like that.

Q14. What are the important components of the Internet Of Things?

There are three important components of the Internet of things (IoT). These are Hardware, software and Conversation Infrastructure.

Q15. What impact will IoT have on the healthcare sector?

The health sector is going to experience an era of advancement that will involve the safety and automation of medical devices. Analyzing a patient would be easier and efficient using IoT. It will have a major impact on prevention as well as a treatment of any disease or injury. Additionally, with more automation to human life, it is possible that the physique of humans will drop down and obesity might become a greater problem. With jobs being eaten up by IoT, stress could also come up as another giant problem to the health sector. So IoT has both positive and negative impacts on the health sector. But it is quite obvious that humans will cope up with the stress and will move ahead as we have done from our past to adapt to the situation.

Q16. Why will energy consumption be a concern after the implementation of Internet Of Things?

The energy is required by the gadgets of Internet Of Things in the form of electricity. It could become a concern since electricity is needed for sensing as well as for the processing of data. Lack of electricity might become a

problem in the working of gadgets.

Q17. Which companies are working for the Internet Of Things?

Samsung, Apple, Cisco, Google, and LG are some of the giants that are already working on the Internet of Things. They are working to make gadgets to be connected. Many small business and agencies have also entered towards the path to IoT for expansion.

Q18. Write a query to insert bulk data to MongoDB.

query:

```
var huge= db.IoTCollection.initializeUnorderedBulkOp();  
huge.insert({location:"India", count:456, polls:456});  
huge.insert({location:"Russia:", count:567, polls:567});  
huge.insert({location:"China", count:789, polls:789});  
huge.insert({location:"USA", count:123, polls:123});  
huge.execute()
```

Q19. Which sensors are most commonly used in IoT ?

The most commonly used sensors in IoT are sensors related to temperature, gas, smoke, detecting motion and pressure sensor.

Q20. Can Internet Of Things (IoT) entirely take the place of the human mind and thereby take the decisions itself?

No. I don't agree with this statement that the Internet Of Things (IoT) can completely take place of the human mind. To some extent, it can do some particular tasks replacing the human mind but when it comes about taking the decisions, the human mind is obviously required. IoT is good for telling probability and measuring the statistics of the data but the decision is under the control of the human mind.

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