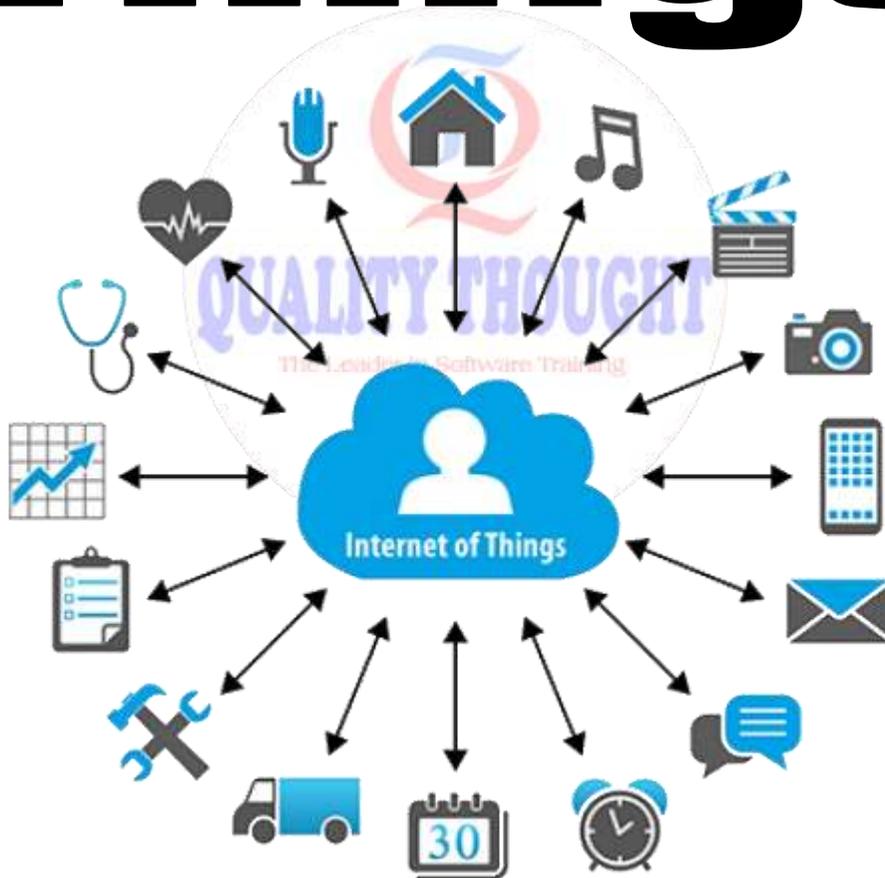


Internet of Things



Interview KIT

IOT Interview Questions & Answers

Q1) What is an IOT?

IOT stands for Internet of Things. It is a network in which various Things can communicate with each other using a Network as a means of communication between them. Usually, this Network will be an internet.

Q2) What is the difference between IOT devices and embedded devices?

Internet of things is a type of embedded system that connects to the internet. Embedded systems tend to be small software programs that implement a few functions. Internet of Things may be updated constantly according to the environment and learn by itself.

Q3) Does the internet is always needed for any IOT devices?

No, the internet is not actually needed all the time. But there should be some network present so that the devices are capable of speaking with each other.

Q4) What is an Arduino?

Arduino is an open-source electronics platform which has easy to use both hardware and software. Arduino boards are a Microcontroller which is capable of reading input from sensors to controlling motors and etc. programmatically.

Q5) How to write instructions or programs for Arduino boards?

The Arduino Software (IDE) allows you to write programs and upload them to your board. A bootloader is needed to upload or flash the code to the board.

Q6) What are the hardware communication interfaces present in the Arduino board?

It has several communication protocols like I2C, SPI, Serial, PWM and etc. 8. What programming language is used to code Arduino? Ans: Basically C programming language is used to code Arduino boards

Q7) What is a Raspberry Pi?

Raspberry Pi is a credit card sized computer which is capable of doing all operations like a conventional computer. But it also has other built-in features like onboard Wi-Fi, Bluetooth and GPIO pins to communicate with other external Things.

Q8) Difference between Arduino and Raspberry Pi?

Basically, Arduino is a micro-controller and Raspberry Pi is a microprocessor. Raspberry Pi is slightly superior to Arduino boards like it has better CPU and GPU processing along with onboard Bluetooth, Wi-Fi, Ethernet and etc.

Q9) What is the operating voltage for both Arduino and Raspberry Pi?

Raspberry Pi works in 5V input voltage and for Arduino, its operating voltage is between 5-12V. Arduino boards have a regulator, which help is work on a different input voltage.

Q10) What are the hardware communication interfaces present in the Raspberry Pi?

Similar to Arduino boards Raspberry pi also has several communication protocols like I2C, SPI, Serial, PWM and etc.

Q11) What are GPIO Pins?

GPIO stands for General Purpose Input and Output pins. It is capable of reading and writing data from development boards like Raspberry and Arduino to other Sensors, motors, actuators, and etc.

Q12) What is the latest Raspberry Pi release?

Raspberry Pi 3 Model B+ was the latest release of RPi team with much better CPU @ 1.4GHz on March 18, 2018.

Q13) How many GPIO pins are there in Raspberry Pi?

Raspberry Pi 3 Model B+ as 40 GPIO pins which can only read and write digital data.

Q14) What are Interrupts in Arduino?

Interrupts allow certain important tasks to happen in the background and are enabled by default. An Interrupt's job is to make sure that the processor responds quickly to important events. When a certain signal is detected, an Interrupt interrupts whatever the processor is doing, and executes some code designed to react.

Q15) List a few operating systems that Raspberry Pi supports?

The official operating system for Raspberry Pi is Raspbian. Although it supports other operating systems like Kali Linux, OSMC, Windows 10 IOT Core, Android Things, RetroPie and etc.

Q16) How do you run Raspberry pi in headless mode?

You can use SSH into Raspberry Pi and run in headless mode. Latest Raspbian OS has inbuilt VNC server installed with that you can take remote desktop on Raspberry Pi.

Q17) What are the available wireless communications boards present in Raspberry Pi?

Wi-Fi and Bluetooth/BLE are the wireless communications present in Raspberry Pi.

Q18) What Python libraries used in Raspberry Pi to control GPIO pins?

RPi.GPIO is the python libraries used in Raspberry Pi to control GPIO pins.

Q19) Can node JS be used in Raspberry Pi to control GPIO pins?

Yes, RPI-gpio is the node library used control Raspberry Pi GPIO pins.

Q20) What is the syntax to read analog and digital data from a sensor in Arduino?

digitalRead() and digitalWrite() are respectively used to read and write digital data to the sensors. analogRead() and analogWrite() are respectively used to read and write analog data to the sensors.

Q21) What is Arduino Shields?

Arduino shields are modular circuit boards that piggyback onto your Arduino to instill it with extra functionality.

Q22) Examples of MEMS sensor?

MPU6050- Gyroscope, ADXL345 – Accelerometer, piezoelectric sensor and etc.

Q23) What is PWM?

PWM stands for Pulse Width Modulation. Pulse width modulation allows us to vary how much time the signal is high in an analog fashion. While the signal can only be high (usually 5V) or low (ground) at any time, we can change the proportion of time the signal is high compared to when it is low over a consistent time interval.

Q24) List some applications of PWM in IOT?

Dimming LED, controlling the speed of DC motor, controlling the direction of a servo motor and etc.

Q25) What sensor and actuator are used to control any home appliances from any IOT devices in wired mode?

A relay is used to control any home appliances from any IOT or Embedded devices. A relay is nothing but an electrically operated switch.

Q26) What is ZigBee protocol?

ZigBee is a wireless Technology with IEEE 802.15.4 based high-level communication protocols which can use to create personal area networks with small, low-power devices for home automation, medical device, and other low-power low bandwidth needs. Hence, ZigBee is a low-power, low data rate, and close proximity wireless ad hoc network.

Q27) What is BLE?

BLE stands for Bluetooth Low Energy. Bluetooth Low Energy uses the same 2.4 GHz radio frequencies as classic Bluetooth but uses less power to transmit distance over a short distance.

Q28) What is the use of BLE in IOT?

Unlike classic Bluetooth, BLE remains in sleep mode constantly except for when a connection is initiated. It is used in applications that do not need to exchange large amounts of data and can, therefore, run on battery power for years at a cheaper cost, therefore it is used as one of the means of exchanging data between the devices.

Q29) What is MicroPython?

MicroPython is a lean and efficient implementation of the Python 3 programming language that includes a small subset of the Python standard library and is optimized to run on microcontrollers such as NodeMCU.

Q30) How many hardware serial interfaces are in ESP 32?

There are 3 hardware serial interfaces are there in ESP32. 37. What firmware can be flashed into NodeMCU? Ans: Either Arduino or MicroPython firmware can be flashed into NodeMCU.

Q31) What are Subscribers and Publishers in MQTT?

Publisher – The devices which transmit or send data over the MQ broker.
Subscribers – The devices which consume or reads data over the MQ broker.

Q32) Example of some MQTT services?

Mosquito MQTT, Cloud MQTT, and PubNub are the commonly known MQTT services available.

Q33) Can NodeMCU act as a web server?

Yes, with the help of ESP8266WebServer Arduino library. This library is for ESP8266. Such similar libraries are also available for other NodeMCU board.

Q34) What is Windows 10 IOT Core?

Windows 10 IOT Core is a full-fledged operating system based on Windows 10 specifically designed to operate on embedded devices. This will empower you to build a single universal app experience.

Q35) Name some of the sectors where IOT played a major role?

Manufacturing, Transportation, Utilities, Healthcare, Consumer electronics, and cars.

Q36) What are the challenges in IOT?

Power utilization and Security will be the major challenges faced in IOT. As all devices are connected to one single network, a small bug implanted into the network will affect all those devices which lead to a chaos.

Q37) Can IOT take over human mind?

No, IOT cannot take the place of the human brain. As the human brain is very complex, self-learning, and the decision making capability makes every known device incomparable to it.

Q38) What is the scope of IOT devices in the future?

As per Gartner's report, a total count of IOT devices may hit up to 21 Billion by 2020 worldwide.

Q39) What is the big IOT implementation so far?

Smart Homes, self-driven cars and etc. are the biggest implementations so far.

Q40) What are Android things?

It is an Android-based operating system particularly build for embedded devices like Raspberry Pi and so on.

Q41) What are the most used sensors types in iot?

1. Temperature sensors
2. Proximity sensor
3. Pressure sensor
4. Gas sensor
5. Smoke sensor
6. IR sensors
7. Motion detection sensors

Q42) How did you detect fire, which sensor is suitable?

I will use smoke sensor which is detect fire and smoke

Q43) How did you measure the voltage using sensors?

I will use Thermocouples which is used for measuring the voltage.

Q44) How the Thermocouples work?

It will measuring the temperature with a change in voltage, if temperature increases thermocouples output voltage will be increased

Q45) What are the sensors can be used in Agriculture?

1. soil moisture sensor
2. Airflow sensors
3. Electro chemical sensors

Q46) What is purpose of Airflow sensors?

It used to measure the air level in soil, we can measure it from the one location or dynamically get from multiple places from the garden.

Q47) How to did you make small radar? is it possible?

yes its possible, by using ultrasonic sensor we can make our own radar, which is detect object presence and distance

Q48) How did you check the quality of water?

Using Water quality sensors, i can detect the quality of waters

Q49) can you list out some of water sensors?

1. Total organic carbon sensor
2. Turbidity sensor
3. Conductivity sensor
4. pH sensor

Q50) Do you have better idea for the saving electricity ?

yes i have, by using light detecting sensors we can switch off street light automatically, which is saved lot of electricity.

Q51) What are suitable databases for IOT?

1. influxDB
2. MongoDB,
3. RethinkDB,
4. SQLite
5. Apache Cassandra

and some more databases available, but these are the most used suitable...

Q52) What are the features of influxDB

1. Great support visualization tools
2. Distributed time series database
3. No external dependencies

Q53) What is meant by Arduino?

It's a programmable microcontroller, it is used to sense and control the electronic devices programmatically.

Q54) What is meant by Raspberry Pi?

It's a credit card size computer, it is portable we can bring everywhere. It runs completely on open source software and nice devices for IOT projects.

Q55) Difference between Arduino and Raspberry Pi?

Arduino: An open programmable USB microcontroller, it can execute only one program at a time.

Raspberry Pi: A credit card sized computer, we can run multiple programs at a time and it has more computing power compared to Arduino.

Q56) What is meant by Raspberry Pi Zero?

Pi Zero is the latest minimized version of Raspberry Pi, its cost is only 5\$.

Q57) Most commonly used protocols in IOT?

1. MQTT protocol
2. XMPP
3. AMQP
4. Data Distribution Service (DDS)
5. Simple Text Oriented Messaging Protocol (STOMP)
6. Very Simple Control Protocol (VSCP)
7. Zigbee
8. WiFi

Q58) What is the abbreviation of MQTT?

MQTT – Message Queue Telemetry Transport.

Q59) What is the Purpose of MQTT protocol?

Its provide the connectivity between application and middleware from net side networks to another side networks.

Q60) What is role of publishers in IOT?

publishers are the light weight sensor that send the Real time data to middle ware or intermediate devices.

Q61) Who is subscribers in IOT?

Subscribers are the application which is interested on collected real time datas from the sensors.

Q62) How did you program the Arduino?

By using Arduino IDE, i can program the Arduino. And another method i can use Node.js Johny five module to control Arduino

Q63) If its possible to controll the keyboard using Arduino?

Yes, its possible to controll the keyboard by using specialized inbuild keyboard Arduino library.

Q64) What is mean by library in Arduino?

Library is the collection of code, which is already written for controlling the sensor or module.

Q65) How did you install new library in Arduino?

In Arduino Select Include library from the Sketch option in Toolbar, It will open File Explorer , select library install from the location. That's it.

Q66) Meaning of Sketch in Arduino?

In Arduino each unit of code called as Sketch which is uploaded and run on the Board.

Q67) Its possible reduce the size of my sketch?

Yes its possible, by Removing unused libraries from the top of the code and make our code very simple and short, Then only we can reduce the size of the sketch.

Q68) How did you control the Arduino using python?

By connecting the serial port of arduino we can control the arduino using python. To connect the serial port we need to import serial module in python.

Q69) List some of wearable arduino boards?

- 1.Lilypad arduino simple
- 2.Lilypad arduino main board
- 3.Lilypad arduino usb
- 4.Lilypad arduino simple snap

Q70) How did host the web server using Arduino?

Using the Arduino Ethernet shield we can host the web server in Arduino.

Q71) What are the available models in Raspberry pi?

Raspberry Pi 1 model B Raspberry Pi 1 model A Raspberry Pi 1 model B+
Raspberry Pi 1 model A+ Raspberry Pi Zero Raspberry Pi 2 Raspberry Pi 3 model B
Raspberry Pi Zero W

Q72) Real Time usage of Raspberry pi?

- 1.Home Automation
- 2.Internet Radio
- 3.Portable webserver
- 4.manipulating the robots

Q73) What is default operating system of Raspberry pi, May i use any other operating systems?

Raspbian is the Default operating system of Pi, Yes we can use windows and any linux operating systems mainly designed for Arm based devices.

Q74) Is windows support for Raspberry pi?

Yes windows gives support for raspberry, with specially designed windows 10 IOT core.

Q75) What is the GPIO ?

GPIO – General purpose input/output. Its a programmable pins which may input or output pins, During run time user control these pin programmatically. for more details https://en.wikipedia.org/wiki/General-purpose_input/output

Q76) which module is used to control the gpio in python?

gpiozero is used to control the gpio pins in Raspberry pi. By using this we can control button, LED, Robot and more things are possible.

Q77) Why should i prepare mongodb for IOT compared to other databases?

Its the document model based storage database. Hence its faster compared to other databases, Rather than that its support more than 20 programming language support for integration.

Q78) What are the programming language supported for MongoDB?

Actionscript info,C,C#,C++,Clojure info,ColdFusion info,D info,Dart info,Delphi info,Erlang,Go info,Groovy info,Haskell,Java,JavaScript,Lisp

info,Lua info,MatLab info,Perl,PHP,PowerShell info,Prolog info,Python,R info,Ruby,Scala,Smalltalk.

Q79) what is mean by aggregation in mongodb?

Its process of datas and return the computed values. for more information: <https://docs.mongodb.com/manual/core/map-reduce/>

Q80) Explain about sharding?

Sharding is Split data into multiple collection and store it in the multiple machines.

Q81) Explain about replication?

Replication is the act of sync datas between multiple servers, which makes mongodb as high availability.

Q82) Explain how did you store the High volume file like video or audio files into Arduino?

Using Gridfs is the specification used to storing and retrieving the audio or video file from MongoDB.

Q83) can you write a query to insert the data into MongoDB?

```
db.yourIoTcollectionname.insert({location:"india", count:"123"});
```

 Here YourIoTcollectionname is the name of your collection.

Q84) Explain how did you insert bulk data in MongoDB, can write query for that?

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()
```

Q85) What is db command ?

db command is mention the currently selected database name in MongoDB;

Q86) What are the layers of OSI?

1.Physical layer 2.Data link layer 3.Network layer 4.Transport layer
5.Session layer 6.Presentation layer 7.Applicaton layer

Q87) List some Advance IOT projects?

1. Control the robot by Hand gesture (like iron man)
2. Office theft prevention system
3. facial recognition based intruder alert system.

Q88) What is the layout GPIO pins?

for layout:<https://www.raspberrypi.org/documentation/usage/gpio/>

Q89) How many pins are available in Arduino UNO board?

Totally 28 pins are availble, for pin names please find at this link <https://www.arduino.cc/en/Hacking/PinMapping168>

Q90) Which Latest model of Raspberry pi now? and its features?

Raspberry pi 3 B+. for its features please refer this link <http://socialcompare.com/en/review/raspberry-pi-3-b-plus>.

Q91)What is the key features of IoT?

The most important feature of IoT include artificial intelligence, connectivity, sensors, active engagement and small device use.

Q92)Advantages of IOT?

We have many advantages of IOT in many fields and businesses ,Such that very enhanced data collection In proper accurate, Efficient way of customer engagement, Less wastage ,Advanced way of using technology

Q93)Disadvantages of IOT?

IOT is also having some disadvantages I.e privacy of data, security of object, Complexity in implementation and flexibility

Q94)What is IOT Sensors?

As of now in IOT technology sensor is the very important device ,many kind of sensors are available in industry i.e. Temperature , Humidity ,Heart-Beat and also which are contain energy modules, power management ,RF Modules etc

Q95)Wearable Devices in IOT?

Wearable electronic devices area unit little devices worn on the top, neck, arms, torso, and feet.

Head – Helmets, Glasses Neck – Jewellery, collars

Arm – Watches, Wristbands, rings Torso- clothing, backpacks

Feet – socks, shoes

Q96)What is data collection in IoT?

This software system manages sensing, measurements, light-weight information filtering, light-weight information security, and aggregation of knowledge. It uses bound protocols to assist sensors in connecting with period, machine-to-machine networks. Then it collects information from multiple devices and distributes it in accordance with settings. It additionally works in reverse by distributing information over devices.

Q97)How Bluetooth technology supports IoT?

This technology supports the low-power, long -use would like of IoT perform whereas exploiting a customary technology with native support across systems.

Q98)How Low energy wireless helps the IoT?

This technology replaces the most power hungry aspect of an IoT systems. Though sensors and other elements can power down over long periods, communication links (i.e. wireless) must remain in listening mode. Low-energy wireless not solely reduces consumption, but also extends the life of the device through less use.

Q99)What is Radio Protocol?

ZigBee ,1z-wave and Thread are radio protocols for creating low-rte private area networks. These technologies square measure low-power, however supply high turnout in contrast to several similar choices. This will increase the facility of little native device networks while not the everyday prices.

Q100) What are the common uses of IoT?

IoT has applications across industries and markets. Engineering, business and Infrastructure Government and safety Home and workplace Health and drugs.

Q101) What is the application of IoT in Environmental Monitoring?

The application of IoT in environmental monitoring are broad: environmental protection, extreme weather monitoring, water safety, endangered species

protection, commercial farming and more. In these applications, sensors notice and live each variety of environmental amendment.

Q102) What is the application of IoT in Transportation?

At each layer of transportation, IoT provides improved communication, control, and knowledge distribution. These applications embrace personal vehicles, industrial vehicles, trains, UAVs, and alternative instrumentation. It extends throughout the complete system of all transportation parts like control, parking, fuel consumption, and more.

Q103) What is the application of IoT in Government?

IoT supports the development of sensible nations and sensible cities. This includes sweetening of infrastructure antecedently mentioned (e.g., healthcare, energy, transportation, etc.), defense, and conjointly the engineering and maintenance of communities.

Q104) What is the application of IoT in Law enforcement?

IoT enhances enforcement organizations and observe, and improves the justice system. The technology boosts transparency, distributes vital information, and removes human intervention wherever it proves excess.

IoT aids in making higher solutions to issues by exploitation technology within the place of force; for instance, light-weight in-person investigations of suspicious activities may be replaced with remote observation, logged footage of violations, and electronic ticketing. It conjointly reduces corruption by removing human management and opinion for a few violations.

Q105) What is IoT Thingworx?

Thingworx may be a platform for the fast development and readying of sensible, connected devices. Its set of integrated IoT development tools support property, analysis, production, and alternative aspects of IoT development.

Q106) Who coined the term net(of Things (IoT) and when?

The term net of Things is sixteen years previous. But the particular plan of connected devices had been around longer, a minimum of since the 70s. Back then, the thought was usually known as "embedded internet" or "pervasive computing". But the particular term "Internet of Things" was coined by Kevin Sir Frederick Ashton in 1999 throughout his work on Procter & Gamble

Q107) What is IoT Cloud?

The Salesforce IoT Cloud may be a platform for storing and process IoT information. It uses the Thunder engine for climbable, period event process. Its assortment of application development elements, called Lightning, powers its applications. It gathers information from devices, websites, applications, customers, and partners to trigger actions for period responses.

Q108) What is IoT GE-PREDIX?

GE (General Electric) Predix could be a software system platform for information assortment from industrial instruments. It provides a cloud- based PaaS (platform as a service), that allows industrial-grade analytics for operations optimization and performance management. It connects information, people, and instrumentation in an exceedingly commonplace method.

Q109) What is IoT Contiki?

Contiki is AN software system for IoT that specifically targets little IoT devices with restricted memory, power, bandwidth, and process power. It uses a minimalist style whereas still packing the common tools of contemporary operative systems. It provides practicality for management of programs, processes, resources, memory, and communication.

Q110) What role does the network play in the Internet of Everything?

must give AN intelligent, manageable, secure infrastructure which will scale to support billions of context-aware devices.

Q111) How does the Internet of Everything relate to the Internet of Things?

The "Internet of Everything" builds on the muse of the "Internet of Things" by adding network intelligence that enables convergence, orchestration and visibility across antecedently disparate systems.

Q112) Difference between IIoT and IoT?

The Industrial IoT connects vital machines and sensors in high-stakes industries like region and defense, care and energy. These area unit systems within which failure usually ends up in severe or different emergency things. On the opposite hand, IoT systems tend to be consumer-level devices like wearable fitness tools, sensible home thermometers and automatic pet feeders

Q113) What is the difference between the Internet of Things (IoT) and the Sensor Business?

Sensors will be employed in scores of other ways, several of that don't ought to be web connected. IoT additionally includes the management facet, not simply the sensing facet.

Q114) Why Internet of Things (IoT) will be successful in the coming years?

As the telecommunication sector is changing into additional intensive and economical, broadband web is wide offered. With technological advancement it's currently less expensive to provide necessary sensors with integral WiFi capabilities creating connecting devices more cost effective.

Q115) What are the important Components of Internet of Things?

1. Hardware-Making physical objects responsive and giving them capability to retrieve knowledge and answer directions
2. code – facultative the info assortment, storage, processing, manipulating and instructing
3. Communication Infrastructure – most significant of all is that the communication infrastructure that consists of protocols and technologies that modify 2 physical objects to exchange knowledge.

Q116) What is the internet of Everything?

The Internet of Everything is that the intelligent affiliation of individuals, process, information and things.

Q117) What Companies are working on IOT?

At this time, the better question could be United Nations agency isn't working on an IoT product. Big names like Samsung, LG, Apple, Google and Philips are all working on connected devices, as are many smaller companies and startups. Research cluster Gartner predicts that 4.9 billion connected devices are in use this year, and therefore the variety can reach twenty five billion by 2020.

Q118) What impacts will the Internet of Things (IoT) have on Energy Sector?

IoT might impact each production and delivery, as an example through facilitating observance of oil wellheads and pipelines. When IoT parts are embedded into components of the electrical grid, the ensuing infrastructure is usually mentioned because the "smart grid". This use of IoT allows bigger management by utilities over the flow of electricity and may enhance the potency of grid operations.

Q119) What impacts will the Internet of Things (IoT) have on Agriculture Sector?

The IoT may be leveraged by the agriculture trade through exactness agriculture, with the goal of optimizing production and potency whereas reducing prices and environmental impacts. For farming operations, it involves analysis of elaborate, usually time period knowledge on weather, soil and air quality, installation, pesterer populations, crop maturity, and alternative factors like the cost and availability of equipment and labor. Field sensors check soil wetness and beam balance, which might be in addition to location technologies to modify precise irrigation and fertilization.

Q120) What is GainSpan's GS2000 Protocol for Internet of Things (IoT)?

GainSpan's GS2000 is one such technical school that used each ZigBee and Wi-Fi. It makes optimum use of power by golf shot the device into energy-saving standby mode once no information transmission is going down. Only when device is awaked or checked for affiliation failure the high power consumption affiliation of Wi-Fi is employed.

Q121) What is Bluegiga APx4 Protocol for Internet of Things (IoT)?

BLE and Wi-Fi along are often used while not interference as they're compliable to beingness protocols. The Bluegiga APx4 is one such resolution that supports each BLE and Wi-Fi and is predicated on 450MHz ARM9 processor.

Q122) What is Wi-Fi Protocol for Internet of Things (IoT)?

Counted because the most mature wireless radio technology, Wi-Fi is predominant communication technology chosen for IoT applications. Already existing protocols like WPS create the mixing of web of things devices easier with the present network. If we have a tendency to say transmission then Wi-Fi offers the most effective power-per-bit potency. However power consumption once devices area unit dormant is far higher with standard Wi-Fi styles.

Counted as the most mature wireless radio technology, Wi-Fi is predominant communication technology chosen for IoT applications. Already existing

protocols like WPS make the integration of internet of things devices easier with the existing network. If we talk about transmission then Wi-Fi offers the best power-per-bit efficiency. However power consumption when devices are dormant is much higher with conventional Wi-Fi designs. The solution is provided by protocols like BLE and ZigBee that reduce power consumption by sensors when devices are dormant.

Q123)What is ZigBee Protocol for Internet of Things (IoT)?

ZigBee could be a low power overwhelming IEEE 802.15.4(2003) commonplace based mostly specification, ZigBee could be a brain kid of sixteen automation corporations. What makes it novel is that the use of mesh networking that makes utilization of communication resources rather more economical. ZigBee based mostly IoT nodes will connect with central controller creating use of middle nodes for propagating the info.

Q124)Is the Internet of Everything a Cisco or IBM architecture or trademark?

No. the web of Everything doesn't describe a selected design and isn't exclusively in hand by Cisco or IBM or the other company.

Q125)What are the IoT Softwares?

This are the softwares are available in IOT Microsoft Azure, Blockchain, windows IoT, All Joyn, Node-RED, Predix, Bluemix.

Q126)Is Mobile phone IoT device?

A mobile phone, especially a smart phone is not a thing of the IoT. Smartphones are regular computing device . Ordinary objects that embed such sensors and have bare minimum ability to convey the status are the things of the IoT.

Q127)What is EIS IoT in TCS?

EIS stands for engineering and industrial service. IoT is a global thing. It stands for net of things or normally cloud primarily based IT solutions once it involves TCS.

Q128)Does Intel provide IoT Platform?

The intel IoT platform is an finish to finish reference model and family of product from intel. That works with third party solutions to provide a foundation for seamlessly and securely connecting device, delivering trusted data to the cloud, and delivering value through analytics.

Q129) What is IoT in TCS?

TCS is collaborating with Intel to develop a portfolio of IoT solutions such as smart cities, smart infrastructure, connected assets and Telematics. The Intel IoT platform is an end-to-end reference model designed to unify and modify property and security for the IoT.

Q130) What is application of IoT in Healthcare?

Current devices are rapidly improving in precision, power, and availability; however, they still offer less of these qualities than an IoT system integrating the right system effectively. IoT unlocks the potential of existing technology, and leads U.S.A. toward new and higher medical device solutions.

Q131) What are other development boards available?

Other boards such as Beagle Bone Black, BananaPi, Intel's Galileo, Asus Tinker Board, MSP 430 Launchpad, and etc.

