IOT Questions and Answers – Arduino

This set of IOT Multiple Choice Questions & Answers (MCQs) focuses on "Arduino".

1. How many types of arduinos do we have?
a) 5
b) 6
c) 8
d) 6
View Answer

Answer: c
Explanation: There are 4 Arduino boards and 4 Arduino shields that fit on top of Arduino compatible boards to provide additional capability like connecting to the internet, motor controller, LCD screen controlling etc.,.

2. What is the microcontroller used in Arduino UNO?
a) ATmega328p
b) ATmega2560
c) ATmega32114

INSTITUTE OF COMPUTER EDUCATION

d) AT91SAM3x8E
View Answer

Answer: a
Explanation: ATmega328p is a microcontroller which is 32KB of flash ROM and 8-bit microcontroller.

3. What does p refer to in ATmega328p?
a) Production
b) Pico-Power
c) Power-Pico
d) Programmable on chip
View Answer

Answer: b

Explanation: Picopower technology employs advanced features like multiple clock domains, DMA and event systems to minimize power consumption.

4. Arduino shields are also called as _____
a) Extra peripherals
b) Add on modules
c) Connectivity modules
d) Another Arduinos
View Answer

INSTITUTE OF
COMPUTER EDUCATION

Answer: b
Explanation: The Arduino boards can connect with add- on modules termed as shields. Multiple, and possibly stacked shields may be individually addressable via an I2C serial bus.

5. What is the default bootloader of the Arduino UNO?
a) Optiboot bootloader
b) AIR-boot
c) Bare box
d) GAG
View Answer

Answer: a
Explanation: The optiboot bootloader will take 512 bytes, leaving 32256 bytes for application code. Due to its small size larger up-loadable sketch size is achieved.

6. Does the level shifter converts the voltage levels between RS-232 and transistor-transistor logic.
a) True
b) False
View Answer

Answer: a

Explanation: Level shifters are used in multi-design, different blocks work on different voltage levels. So when a signal passes from one voltage domain to another voltage this is needed particularly when a signal passes from low level to high level.

7. Which is the software or a programming language used for controlling of Arduino?
a) Assembly Language
b) C Languages
c) JAVA
d) Any Language
View Answer

Answer: d

Explanation: A program for Arduino can be written in any programming language for a compiler that produces binary machine code for the target processor.

8. Do Arduino provides IDE Environment?
a) True
b) False
View Answer

INSTITUTE OF
COMPUTER EDUCATION

Answer: a

Explanation: It includes a code editor with features as texti cutting and pasting, searching and replacing text, automatic indenting, brace matching, syntax highlighting, and provides simple one-click mechanism to compile and uplaod programs to an Arduino board.

9. A program written with the IDE for Arduino is called _____
a) IDE source
b) Sketch
c) Cryptography
d) Source code
View Answer
Answer: b
Explanation: Sketches are saved on the development computer as text files with the file extension .ino. Arduino software (IDE) pre-1.0 saved sketches with the extension file .pde.

10. Arduino IDE consists of 2 functions. What are they?
a) Build() and loop()

b) Setup() and build()
c) Setup() and loop()
d) Loop() and build() and setup()
View Answer
Answer: c
Explanation: Setup() is called once in the program when a sketch starts after power-up. It is used to initialixe variables, input and output pin modes, and other libraries needed in the sketch.
Loop() is used after setup() been called, function loop() is executed repeatedly in the main program. It controls the board until the board is powered off or is reset.

11. How many digital pins are there on the UNO board?
a) 14
b) 12
c) 16
d) 20

Answer: a

Explanation: It has 14 digital pins input/output pins of which 6 can be used as PWM output, 6 analog inputs, a USB connection, a power jack, a reset button and more.

INSTITUTE OF COMPUTER EDUCATION

12. _____ board allows sewn into clothing.
a) UNO
b) RedBoard
c) LilyPad
d) Mega
View Answer

Answer: c

Explanation: LilyPad was creatively designed with large connecting pads and a flat back to allow them to be sewn into clothing with conductive thread.

13. How many analog pins are used in Arduino Mega board?
a) 16
b) 14
c) 12
d) 8
View Answer

Answer: a

Explanation: It has lots of digital input/output pins, 14 can be used as PWM output 16 analog inputs, a USB connection, a power jack, and a reset button.

14. Which board is first to use microcontroller within build USB?
a) LilyPad
b) UNO
c) RedBoard
d) Leonardo
View Answer
Answer: d
Explanation: The Leonard is Arduino's first development board to use one microcontroller with built-in USB. This means that it can be cheaper and simple, And also, code libraries are available which allow the board to emulate a computer keyboard etc.

15. _____ are pre built circuit boards that fit on top of Android.
a) Sensor
b) Data types
c) Breadboard
d) Sheilds
View Answer
Answer: d
Explanation: Shields are pre- built circuit boards that fit on top of board and provide additional capabilities

like controlling motors, connecting to internet, providing cellular etc.

16. What is the use of Thermostat in Nest Thermostat E?
a) Save energy
b) Show the use of energy
c) Supports in some devices only
d) Won't work at some conditions
View Answer
Answer: a
Explanation: The thermostat controls half of our energy bills. Independent studies shows that Nest saved people an average of 10% to 20% on heating and 15% on cooling.

17. What is the main function of Nest Thermostat E?
a) Change the temperature only when we are at home
b) Reduce the energy used
c) Change the temperature from anywhere

INSTITUTE OF COMPUTER EDUCATION

d) Powers off when a person is not present
View Answer
Answer: c
Explanation: Its energy saving feature can help in save from day one. And with the nest app we can change the temperature from anywhere-the beach, the office or the bed.

18. It displays when you are close.
a) True
b) False
View Answer
Answer: a

Explanation: The frosted display blends into the background. It shows only when your close, and fades into the background when you walk away.

19. Does HomePod allow voice controlling?
a) True
b) False
View Answer
Answer: a
Explanation: HomePod is a smart speaker that

INSTITUTE OF COMPUTER EDUCATION

focuses on playing music and allows users to control the device via voice using Siri.

20. Function of huge light bulb?
a) To reduce energy and to control lightning
b) To create lighting scenes based on your favourite photos
c) To reduce energy and to create lighting scenes based on your favourite photos and to control lightning
d) To controlling lightning and to create lighting scenes based on your favourite photos
View Answer
Answer: c
Explanation: A single bridge will let you control up to 50 bulbs and you will be able to create lighting scenes based on your favourite photos. Obviously, the lightning is controlling from your smart phone or tablet. They are said to help use of 80% less energy than our traditional bulbs.

21. What is the drawback of using Lockitron?
a) Wastage of more energy
b) Supports in some devices only

12

c) Won't work at some conditions
d) Tough installation
View Answer
Answer: b
Explanation: Lockitron is a device which ensures key less entry inside our home using our home. We can also monitor to see if the door is locked. And if not it will send a notification when it is unlocked. The drawback is that it will work only with iphone 4s or iphone 5.

22. Sonos is a system that uses _____ wireless speakers.
a) Wifi
b) Hifi
c) Zigbee
d) Bluetooth
View Answer
Answer: b
Explanation: Sonos is a system of Hifi wireless speakers and audio components that combines all your music collections, radio or podcasts in a single app.

23. What is the facility Sonos provides?

provides high quality 3D audio
an here only to a restricted area
all connectivity
d) Choose to play what you want in different rooms
View Answer
Answer: d
Explanation: We can choose to play what you want in different rooms by using a dedicated wireless network. Sonos has got a wide collection of products for music fans, from speakers to sound bars, so head.

24. Smart Fitness clothing mainly has which device?
a) Battery
b) Bluetooth
c) Sensors
d) Internet
View Answer
Answer: c
Explanation: Each garment has a built in sensor which measures muscle activity using electromyography. This information is relayed to the "IRON MAN" hub, which we can attach to our leg or chest.

INSTITUTE OF COMPUTER EDUCATION

25. What are Revolv means?
a) In built programming of all devices
b) Movement of device
c) A simple robot
d) Bringing all devices under a single command
View Answer
Answer: d
Explanation: Revolv is a platform that brings more devices together under a single command centre. We can control the lightning in our room our Apple TV, heating and much more.

a) In built programming of all devices
b) Movement of device
c) A simple robot
d) Bringing all devices under a single command
View Answer
Answer: d
Explanation: Revolv is a platform that brings more ces together under a single command centre. can control the lightning in our room our Apple heating and much more.

14

26. Which one is not an element of IoT

1. People
2. Process
3. Security
4. Things

27. Which is not true about GainSpans GS2000 Protocol

1. GS2000 Protocol is for Internet of Things (IoT)
2. GainSpans GS2000 tech uses only ZigBee
3. GainSpans GS2000 is one such tech which used both ZigBee and Wi-Fi

INSTITUTE OF COMPUTER EDUCATION

4. It makes optimum use of power by putting the device into energy-saving standby mode when no data transmission is taking place

28. What risks and challenges should be considered in the Internet of Everything?

1. Privacy and Security
2. Energy Consumption
3. Network Congestion
4. All of the above

29. Bluegiga APx4 Protocol supports

1. Only BLE
2. Only WiFi
3. Both BLE and WIFi
4. None of the above

30. What us IIoT ?

1. Information Internet of Things
2. **Industrial Internet of Things**
3. Innovative Internet of Things
4. None of the above

16

INSTITUTE OF COMPUTER EDUCATION

31. Who invented the term the Internet of Things?

1. Bill Gates
2. **Kevin Ashton**
3. Steve Jobs
4. McDonald

32. The huge numbers of devices connected to the Internet of things have to communicate automatically, not via humans. What is this called?

1. Bot to Bot (B2B)
2. **Machine to Machine (M2M)**
3. InterCloud
4. Skynet

33. Who said this? The internet will disappear. There will be so many IP addresses, so many devices, sensorsâ€¦ that it will be part of your presence all the time. Imagine you walk into a room and you are interacting with the things going on in there

1. Facebook Founder Mark Zuckerberg
2. Microsoft Chairman Bill Gates

34. What is the size of the IPv6 addressed ?

1. 32 bits
2. 64 bits
3. **128 bits**
4. 256 bits

35. What is the name of the first recognized IoT device ?

1. Smart Watch
2. **ATM**
3. Radio
4. Video Game

36. _____ is being used by Internet of Things

1. **Radio identification technology**
2. Satellite
3. Cable
4. Broadband

INSTITUTE OF COMPUTER EDUCATION

37. _____ best describes the MQTT protocol

1. Machine-to-Machine (M2M)
2. Publish / Subscribe
3. **Request / Response**
4. Mesh Networking

37. _____ best describes the MQTT protocol

18

1. Machine-to-Machine (M2M)
   Publish / Subscribe
   Request / Response
   Mesh Networking

38. The Internet of Things will run on many communication standards. Which of these is not a standard body or protocol?

1. Zigbee
2. AllSean
3. Tyrell
4. Z-Wave

39. When was the term IoT first coined?

1. 1998
2. 1999
3. 2000
4. 2001

INSTITUTE OF COMPUTER EDUCATION

40. When did IoT devices surpass people in number?

1. 2005
2. 2006
3. 2007
4. 2008

41. How many key features must an IoT device have, according to The Internet of Things Global Standards?

1. 5
2. 6
3. 7
4. 8

42. The Internet of Things will run on many communication standards. Which of these is not a standard body or protocol?

1. Zigbee
2. AllSean
3. Tyrell
4. Z-Wave

43. Which is not one of the features of Internet of Things devices ?

  1. remotely controllable
  2. programmable
  3. can turn themselves off if necessary
  4. all are features

44. How many devices are estimated to be connected to the Internet of Things by 2020?

  1. approx.. 2 million
  2. approx.. 20 million
  3. approx.. 75 million
  4. approx.. 100 million
  5.

45. This alliance is composed of 20 world technology leaders working to develop standards and protocols for device communication

  1. AllAboard
  2. AllConnected
  3. AllDevyce
  4. AllJoyn

INSTITUTE OF COMPUTER EDUCATION

46. _____ allows us to control electronic components

a) RETful API
b) RESTful API
c) HTTP
d) MQTT
View Answer

Answer: a

Explanation: RETful API that allows us to control electronic components connected to our Intel Galileo Gen 2 board through HTTP requests.

47. MQTT stands for _____
a) MQ Telemetry Things
b) MQ Transport Telemetry
c) MQ Transport Things
d) MQ Telemetry Transport
View Answer
Answer: d
Explanation: MQTT was known as MQ Telemetry Transport protocol. MQTT is a lightweight protocol that runs on top of the TCP/IP protocol.

22

INSTITUTE OF
COMPUTER EDUCATION

48. MQTT is better than HTTP for sending and receiving data.
a) True
b) False
View Answer
Answer: a
Explanation: We want to send and receive data in real time through internet and RESTful API is not the most appropriate option to do this. Instead, we will work on MQTT which is lighter than HTTP.

49. MQTT is _____ protocol.
a) Machine to Machine
b) Internet of Things
c) Machine to Machine and Internet of Things
d) Machine Things
View Answer
Answer: c
Explanation: The MQTT protocol is a machine to machine and Internet of thing connectivity protocol.

50. Which protocol is lightweight?
a) MQTT
b) HTTP

Answer: c
Explanation: The MQTT protocol is a machine to machine and Internet of thing connectivity protocol.

50. Which protocol is lightweight?
a) MQTT
b) HTTP

23

INSTITUTE OF COMPUTER EDUCATION

c) CoAP
d) SPI
View Answer
Answer: a
Explanation: MQTT is a lightweight protocol that runs on top of the TCP/IP protocol and works with publish subscribe mechanism.

51. PubNub publishes and subscribes _____ in order to send and receive messages.
a) Network
b) Account
c) Portal
d) Keys
View Answer
Answer: d
Explanation: It is necessary to generate our PubNub publishes and subscribes keys in order to send and receive messages in the network.

52. By clicking which key the PubNub will display public, subscribe, and secret keys.
a) Pane
b) Demo Keyset

24

INSTITUTE OF COMPUTER EDUCATION

c) Portal
d) Network
View Answer
Answer: b
Explanation: Click on Demo keyset pane and PubNub will display public, subscribe, and secret keys. We must copy and paste each of these keys to use them in our code that will publish messages and subscribe to them.

53. The messageChannel class declares the _____ class attribute that defines the key string.
a) command_key
b) command-key
c) commandkey
d) Key_command
View Answer
Answer: a
Explanation: The messageChannel class declares the command_key class attribute that defines the key string that defines what the code will understand as the command.

54. _____ method saves the received arguments in three attributes.
a) __Init
b) Init__
c) __Init__
d) _init_
View Answer

Answer: c

Explanation: __Init__ method saves the received arguments in three attributes with the same names.

_____ and _____ saves the publish and subscribe keys that we have generated with the PubNub Admin portal.
a) public_key and subscribe_key
b) Public-key and subscribe-key
c) publickey and subscribekey
d) Key_public and key_subscribe
View Answer

Answer: a

Explanation: Then, the constructor declares two local variables: public_key and subscribe_key. These local variables save the public and subscribe keys that we had generated with the PubNub Admin portal.

INSTITUTE OF COMPUTER EDUCATION

56. _____ specifies the function that will be called when there is a new message received from the channel.
a) Reconnect
b) Error
c) Connect
d) Callback
View Answer

Answer: d

Explanation: The call to this message specifies many methods declared in the MessageChannel class
Callback: specifies the function that will be called when there is a new message received from the

57. _____ specifies the function that will be called on an error event.
a) Callback
b) Error
c) Connect
d) Reconnect
View Answer
Answer: b
Explanation: The call to this message specifies

27

INSTITUTE OF
COMPUTER EDUCATION

many methods declared in the MessageChannel class
Error: specifies the function that will be called on an error event.

58. _____ Specifies the function that will be called when a successful connection with the PubNub cloud.
a) Callback
b) Error
c) Connect
d) Reconnect
View Answer
Answer: c
Explanation: The call to this message specifies many methods declared in the MessageChannel class
Connect: specifies the function that will be called when a successful connection with the PubNub cloud.

59. _____ specifies the function that will be called when a successful re-connection is completed.
a) Callback

b) Error
c) Connect
d) Reconnect
View Answer
Answer: d
Explanation: The call to this message specifies many methods declared in the MessageChannel class
Reconnect: specifies the function that will be called when a successful re-connection is completed with the PubNub cloud.

28 _____ specifies the function that will be called when the client disconnects.
a) Callback
b) Error
c) Connect
d) Disconnect
View Answer
Answer: d
Explanation: The call to this message specifies many methods declared in the MessageChannel class
Disconnect: specifies the function that will be called when the client disconnects from the PubNub cloud.

INSTITUTE OF
COMPUTER EDUCATION

61. Which characteristics involve the facility the thing to respond in an intelligent way to a particular situation?
a) Intelligence
b) Connectivity
c) Dynamic Nature
d) Enormous Scale
View Answer
Answer: a
Explanation: IoT comes with the combination of algorithms and computation, software and hardware

algorithms and computation, software and hardware that makes it smart. Ambient Intelligence in IoT enhances its capabilities which facilitate the things to respond in an intelligent way to a particular situation.

62. _____ empowers IoT by bringing together everyday objects.
a) Intelligence
b) Connectivity
c) Dynamic Nature
d) Enormous Scale
View Answer

30

INSTITUTE OF COMPUTER EDUCATION

Answer: b
Explanation: Connectivity empowers IoT by bringing together everyday objects. Connectivity of these objects is pivotal because simple object level interactions contribute towards collective intelligence in IoT network.

63. The collection of data is achieved with _____ changes.
a) Intelligence
b) Connectivity
c) Dynamic Nature
d) Enormous Scale
View Answer
Answer: c
Explanation: The primary activity of Internet of Things is to collect data from its environment, this os achieved with the dynamic changes that take place around the devices.

64. The number of devices that need to be managed and that communicate with each other will be much larger.
a) Intelligence

b) Connectivity
c) Dynamic Nature
d) Enormous Scale
View Answer
Answer: d
Explanation: The number of devices that need to be managed and that communicate with each other will be much larger than the devices connected to the current internet.

31 _____ Provide the means to create capability that reflects true awareness of the physical world and people.
a) Sensors
b) Heterogeneity
c) Security
d) Connectivity
View Answer
Answer: a
Explanation: Sensing technologies provide the means to create capability that reflects true awareness of the physical world and people in it. The sensing information is simply the analogue input from the physical world.

ICE **INSTITUTE OF COMPUTER EDUCATION**

66. _____ in IoT as one of the key characteristics, devices have different hardware platforms and networks.
a) Sensors
b) Heterogeneity
c) Security
d) Connectivity
View Answer
Answer: b

Explanation: Heterogeneity in IoT as one of the key characteristics, devices have different hardware platforms and networks. And can interact with other devices or services platforms through different networks.

67. IoT devices are naturally vulnerable to _____ threats.
a) Sensors
b) Heterogeneity
c) Security
d) Connectivity
View Answer
Answer: c
Explanation: IoT devices are naturally vulnerable to

33

INSTITUTE OF COMPUTER EDUCATION

security threats. There is a high level of transparency and privacy issues with IoT.

68. Which challenge comes under IoT devices, reliable bidirectional signaling.
a) Signaling
b) Security
c) Presence detection
d) Power consumption
View Answer
Answer: a
Explanation: With connected IoT devices, reliable bidirectional signaling is essential for collecting and routing data between devices.

69. Which challenge comes under securing the information?
a) Signaling
b) Security
c) Presence detection
d) Power consumption
View Answer

Answer: b

Explanation: Security is a huge umbrella, but it's paramount in Internet of Things connectivity.

70. _____ gives an exact, up to the second state of all devices on a network.

a) Signaling
b) Security
c) Presence detection
d) Power consumption

View Answer

Answer: c

Explanation: Its important to immediately know when an IoT device drops off the network and goes offline and when comes online back. Presence detection of IoT devices gives an exact, up to the second state of all devices on a network.

34

Which challenge comes when we use many devices on the same network?

a) Signaling
b) Security
c) Presence detection
d) Power consumption

View Answer

ICE INSTITUTE OF COMPUTER EDUCATION

Answer: d

Explanation: You need minimal battery drain and low power consumption. You can't afford to use up 100% of an IoT devices small and expensive embedded CPU power.

72. _____ a cellular network is expensive, especially with many IoT devices.

a) Signaling
b) Security
c) Bandwidth
d) Power consumption

View Answer

Answer: c

Explanation: In addition to power and CPU, bandwidth consumption is another challenge for IoT connectivity. Bandwidth on a cellular is expensive, especially with many IoT devices.

73. Which of the following issues are considered in IoT?
a) Security Issue
b) Reliablity Issue
c) Standard Issue

36

INSTITUTE OF COMPUTER EDUCATION

d) All issues
View Answer
Answer: d
Explanation: We should be very careful while building IoT as it has the following issues:
Security Issue
Reliablity Issue
Standard Issue.

74. SBC stands for?
a) Standard Building Center
b) Smart Business Center
c) Standard Business Center
d) Smart Building Center
View Answer
Answer: b
Explanation: One of the key subsystems from point of view of security of the complex IoT system is a smart business center system.

75. IoT is a paradigm that involves ubiquitous presence in the environment.
a) True

b) False
View Answer
Answer: a
Explanation: IoT is a paradigm that involves ubiquitous presence in the environment of different things that are using wireless and wire networks.

1. Is MQTT a Standard?
   ○ **Yes**
   ○ No

---

2. IANA stands for:
   ○ a. Internal Assessment Numerical Access
   ○ b. Internet Association Numbers Authority
   ○ c. International Aid for Network Automation
   ○ **d. Internet Assigned Numbers Authority**

38

INSTITUTE OF COMPUTER EDUCATION

3. Standard port number for secure MQTT is:
   ○ a. 1883
   ○ b. 8000
   ○ **c. 8883**
   ○ d. 8888

---

4. Is CoAP a IETF standard?
   ○ **True**
   ○ False

5. Bluetooth 5.0 promises:
   - a. 4x Speed, 2x Range, 2x Data
   - b. 6x Speed, 3x Range, 3x Data
   - **c. 2x Speed, 4x Range, 8x Data**
   - d. 3x Speed, 4x Range, 8x Data

INSTITUTE OF
COMPUTER EDUCATION

40

6. Terms SSL and TLS stand for:
   - a. Secure Socket Layers and Transport Layer Session
   - **b. Secure Socket Layers and Transport Layer Security**
   - c. Secure Socket Layout and Transport Level Session
   - d. Session Socket Layers and Transport Layer Session

7. Which one out of these is not a data link layer technology:
   - a. Bluetooth
   - b. UART
   - c. WiFi
   - **d. HTTP**

8. Which transport layer protocols is used by DHCP?

- a. RSVP
- b. TCP
- c. DCCP
- **d. UDP**

9. Which layer is called a port layer in OSI model:

- **a. Session**
- b. Application
- c. Presentation
- d. Transport

10. What is a firewall in computer networks:

41

a. A system designed to prevent unauthorized access

INSTITUTE OF
COMPUTER EDUCATION

- b. A web browser
- c. The physical boundary of network
- d. The Network Operating System

10. Router operate at .... layer of OSI reference model?

- a. Layer 2 (Data Link)
- **b. Layer 3 (Network)**
- c. Layer 1 (Physical)
- d. Layer 4 (Transport)

11. Each IP packet must contain:
- a. Only Destination IP Address
- b. Only Source IP Address
- c. None of Above
- **d. Source and destination IP Addresses**

INSTITUTE OF COMPUTER EDUCATION

43

12. Which one of this is not a networking device:
- a. Router
- b. Switch
- c. Bridge
- **d. Traffic Analyzer**

13. What is the standard length of MAC address:
- a. 16 bits
- b. 32 bits
- **c. 48 bits**
- d. 64 bits

14. What is the use of Ping command:
- a. To know network speed
- b. None of the above
- **c. To test a host on the network is reachable**
- d. To test storage device

15. What is Secure Shell (SSH):
- a. A router
- b. A firewall
- **c. A network protocol**
- d. Python Shell

16. What does VNC stand for:
- a. Various Network computers
- **b. Virtual Network Computing**
- c. None of the above
- d. Virtual Network Communication

44

🎗 **INSTITUTE OF COMPUTER EDUCATION**

17. What is the purpose of bin directory in Linux environment:
- a. Contains essential device files
- **b. Contains essential binary commands**
- c. Containing configuration files
- d. Contains user home directories

18. What is Inter Integrated Communication(I2C):
   ○ a. An application layer protocol
   ○ **b. A networking communication protocol for multi-master support**
   ○ c. An OS for distributed network communication
   ○ d. A cellular communication protocol

INSTITUTE OF COMPUTER EDUCATION

19. How many wires does SPI protocol use:
   a. 2
   b. 3
   ○ c. 1
   ○ **d. 4**

46

20. What does LTE stand for:
   ○ a. Long Term Errors
   ○ **b. Long Term Evolution**
   ○ c. Lengthy Terminal Estimation
   ○ d. Long Term Estimates

21. Which one out of these is not LPWAN technologies:
   ○ a. SigFox
   ○ **b. WiFi**

- c. NB-IoT
- d. LoRa

---

22. Frequency band used by 802.11 ah standard is:
- a. 60 GHz
- b. 2.4 GHz
- **c. Sub 1 GHz**
- d. 5 GHz

47

---

23. Fuzzy Logic is a form of:
- a. Hexa state logic
- b. Two-valued logic
- c. Binary set logic
- **d. Many valued logic**

24. _____ involves predicting a response with meaningful magnitude, such as quantity sold, stock price, or return on investment.

- a. Summarization
- b. Clustering
- c. All of the mentioned
- **d. Regression**

25. Which of the following language is preferred for IoT analytics ?

- a. Python
- b. S
- c. R
- d. All of the mentioned

26. Which one is simplest form of analytics

- a. Predictive
- **b. Descriptive**
- c. All of the mentioned

48

INSTITUTE OF COMPUTER EDUCATION

- d. Prescriptive

27. The method by which companies analyze customer data or other types of information in an effort to identify patterns and discover relationships between different data elements is often referred to as:

- a. Customer data management
- **b. Data mining**
- c. Data digging
- d. None of the above

28. A collection of lines that connects several devices is called ....
- ○ **a. Bus**
- ○ b. Cable
- ○ c. Power line
- ○ d. Transmission Line

INSTITUTE OF COMPUTER EDUCATION

29. A start bit in UART communication is always:
- ○ **a. 1**
- ○ b. Neither of these
- ○ **c. 0**

50

30. Machine learning is
- ○ a. The selective acquisition of knowledge through the use of manual programs
- ○ b. The autonomous acquisition of knowledge through the use of manual programs
- ○ c. The selective acquisition of knowledge through the use of computer programs

31. HTTP resources are located by
- a. unique resource locator
- b. unique resource identifier
- c. none of the mentioned
- **d. uniform resource identifier**

32. What is the TCP name for a transport service access point
- a. none of the mentioned
- b. node
- c. pipe
- **d. port**

51

ICE **INSTITUTE OF COMPUTER EDUCATION**

33. A Denial of Service attack is:
- a. Connection flooding
- b. Bandwidth flooding
- **c. All of the mentioned**
- d. Vulnerability attack

34. A packet sniffer is
- a. Active receiver
- b. Both of the mentioned
- **c. Passive receiver**
- d. None of the mentioned

35. IPSec provides security at:
- ○ a. Physical Layer
- ○ **b. Network Layer**
- ○ c. Transport Layer
- ○ d. Session Layer

(ICE) INSTITUTE OF COMPUTER EDUCATION

36. WPA is a security mechanism in
- ○ **a. WiFi**
- ○ b. Cloud
- ○ c. Bluetooth
- ○ d. Ethernet

53

37. Network topology with a central hub or switch is
- ○ a. Mesh
- ○ b. Token ring
- ○ **c. Star**
- ○ d. Token bus

38. Internet domain name and hostname are translated into IP address by

- ○ **a. Domain name system**
- ○ b. Domain name database
- ○ c. Router
- ○ d. Domain information system

39. Which protocol allows user at one site to establish connection to another site and pass keystroke from local to remote host:

- ○ **a. Telnet**
- ○ b. FTP
- ○ c. IP
- ○ d. HTTP

54

ICE **INSTITUTE OF COMPUTER EDUCATION**

40. How many times setup function runs in Arduino IDE:

- ○ a. None of the above
- ○ b. 10
- ○ c. 2
- ○ **d. 1**

41. How many times loop function runs in Arduino IDE:
- a. 4
- **b. forever**
- c. 1
- d. 5

42. What error occurs when you execute?
x = abc
- **a. NameError**
- b. SyntaxError
- c. ValueError

INSTITUTE OF COMPUTER EDUCATION

- d. TypeError

56

3. PWM stands for:
- a. None of the above
- b. Pulse Width Mode
- c. Pulse With Modulation
- **d. Pulse Width Modulation**

44. Raspbian is:
- a. Assembler
- b. Language
- c. Compiler
- **d. OS**

45. CGI stands for:

- a. Common Gateway Interest
- b. Common Gateway Interrupt
- c. Common Gate Interference
- **d. Common Gateway Interface**

---

46. MQTT is:

- a. Based on client-server architecture
- **b. Based on publish-subscribe architecture**
- c. Based on both of the above
- d. Based on none of the above

57

INSTITUTE OF
COMPUTER EDUCATION

47. What is the access point (AP) in wireless LAN?

- a. none of the mentioned
- b. wireless devices itself
- c. both (a) and (b)
- **d. device that allows wireless devices to connect to a wired network**

48. In wireless ad-hoc network
- a. none of the mentioned
- **b. access point is not required**
- c. nodes are not required
- d. access point is must

INSTITUTE OF
COMPUTER EDUCATION

49. Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
- a. ALOHA
- **b. CSMA/CA**
- c. CDMA
- d. none of the mentioned

59

---

50. Which is the correct operator for power(x^y)?
- a. x^y
- b. x^^y
- **c. x**y**
- d. None of the mentioned

51. What is WPA?
- **a. wi-fi protected access**
- b. wired process access
- c. wired protected access
- d. wi-fi process access

52. The answer of 2+3L is:

- a. 5.0
- **b. 5L**
- c. 5
- d. Error

---

53. An interconnected collection of piconet is called

- a. micronet
- **b. scatternet**
- c. mininet
- d. none of the mentioned

---

54. In a piconet, there can be up to _____ parked nodes in the net.

- a. 511
- b. 63

60 **INSTITUTE OF COMPUTER EDUCATION**

- **c. 255**
- d. 127

---

55. Secure shell (SSH) network protocol is used for

- a. remote command-line login
- b. remote command execution
- **c. all of the mentioned**
- d. secure data communication

56. The network layer concerns with
  ○ a. bits
  ○ b. frames
  ○ c. none of the mentioned
  ○ **d. packets**

INSTITUTE OF COMPUTER EDUCATION

57. Ethernet frame consists of
  ○ a. none of the mentioned
  ○ b. IP address
  ○ c. both (a) and (b)
  ○ **d. MAC address**

---

58. What is internet?
  ○ a. interconnection of local area networks
  ○ **b. a vast collection of different networks**
  ○ c. a single network
  ○ d. none of the mentioned

62

---

59. DNS database contains
  ○ a. hostname aliases
  ○ b. hostname-to-address records
  ○ **c. all of the mentioned**

1) How many numbers of the element in the open IoT architecture?

a. Four elements

b. Five elements

c. Six elements

d. Seven elements

Answer: (d) Seven elements

Description: There are seven numbers of elements in the open IoT architecture:

1. Configuration and monitoring

2. Cloud data storage

3. Scheduler

4. Request definition

5. Request presentation

6. Service delivery and utility manager

INSTITUTE OF COMPUTER EDUCATION

64

Sensor middleware (X-GSN)

2) Which of the following is the way in which an IoT device is associated with data?

a. Internet

b. Cloud

c. Automata

d. Network

Answer: (b) Cloud

Description: Cloud-based services provide a way for IoT devices to be connected to data. For example: Just as the WWW (World Wide Web) runs on the Internet, so does IoT.

---

3) Which of the following IoT networks has a very short range?

a. Short Network

INSTITUTE OF COMPUTER EDUCATION

b. LPWAN

c. SigFox

d. Short-range Wireless Network

Answer: (d) Short Range Wireless Network

Description: Short-range wireless networks have a very short range. This type of network is used for applications running in the local environment. The best example of this network is Wi-Fi and Bluetooth.

66

What is the full form of the LPWAN?

a. Low Protocol Wide Area Network

b. Low Power Wide Area Network

c. Long Protocol Wide Area Network

d. Long Power Wide Area Network

Answer: (b) Low Power Wide Area Network

Description: The full form of the LPWAN is Low Power Wide Area Network. LPWAN is a type of wireless telecommunication, and it is specially designed for M2M (Machine to Machine) and IoT devices.

5) An IoT network is a collection of _____ devices.

a. Signal

b. Machine to Machine

c. Interconnected

d. Network to Network

Answer: (c) Interconnected

Description: An IoT network is a collection of interconnected devices that communicate with other devices without human involvement.

67

INSTITUTE OF COMPUTER EDUCATION

6) Which one of the following is not an IoT device?

a. Amazon echo voice controller

b. Google Home

c. Nest Smoke Alarm

d. None of these

Answer: (d) None of the these

Description: These are all IoT devices. Google Home is a smart speaker that obeys all the commands given by the user. The Amazon Echo Voice Controller is also a smart speaker. The Nest Smoke Alarm is an IoT device that sends a smoke alert message to the user when a fire occurs

---

7) What is the main purpose of WoT (Web of Things) in the IoT?

a. Improve the usability and interoperability

b. Reduce the security

INSTITUTE OF COMPUTER EDUCATION

c. Complex the development

d. Increase the cost

___**Answer:** (a) Improve the usability and interoperability

Description: The main purpose of the Web of Things is to improve the usability and interoperability in IoT. Developing IoT Apps through WoT is much easier, faster, and less expensive.

69

8) What is the Arduino UNO?

a. Software

b. Hardware device

c. Network

d. Protocol

_**Answer:** (b) Hardware device

Description: The Arduino Uno is a hardware device that is based on the Microchip ATmega328P microcontroller. It has been developed by Arduino.cc.

---

9) _____ allows the user to control electronic components.

a. Android API

b. RETful API

c. MQTT API

d. CoAP API

Answer: (b) RETful API

Description: The RETful API allows the user to control the electronic components connected to the Intel Galileo Gen 2 board via HTTP requests.

---

10) Which of the following is not an application of IoT?

INSTITUTE OF COMPUTER EDUCATION

a. Wearables

b. Smart Grid

c. Arduino

d. Smart City

Answer: (c) Arduino

Description: The Arduino Uno is a hardware device that is based on the Microchip ATmega328P microcontroller.

11) Which one of the following protocols is lightweight?

a. IP

b. HTTP

c. MQTT

d. CoAP

Answer: (c) MQTT

INSTITUTE OF COMPUTER EDUCATION

Description: The full form of the MQTT is Message Queue Telemetry Transport. It is a lightweight messaging protocol that runs over the TCP / IP protocol.

12) What is the role of Big Data in IoT's Smart Grid architecture?

a. Filter the data

b. Locked the data

c. Store data

d. None of the these

72   Answer: (c) Store data

Description: The main role of Big Data is to store data on a real-time basis. It uses multiple storage technologies to store the data.

13) What is the real example of a smart grid device in IoT?

a. Mobile phone

b. Television

c. Smart Speaker

d. Smart Meters

Answer: (d) Smart Meters

Description: Smart Grid is used to monitor the power supply. Consumers' data is collected using a smart grid, and that data is analyzed and distributed to the consumers. The real example of a smart grid device is a smart meter.

---

14) What is the full form of the MQTT?

a. Multi-Queue Telemetry Things

b. Multiple Queue Telemetry Things

c. Message Queue Telemetry Things

INSTITUTE OF COMPUTER EDUCATION

73

d. Message Queue Telemetry Transport

Answer: (d) Message Queue Telemetry Transport

Description: The full form of the MQTT is Message Queue Telemetry Transport. It is a lightweight messaging protocol that runs over the TCP / IP protocol.

15) What is the full form of ICT?

a. InterConnect Technology

b. Internet Connection Topology

c. Information and Communication Technology

d. Infer Communication Topology

__Answer: (c) Information and Communication Technology

Description: The full form of ICT is Information and Communication Technology. ICT is a multidimensional term for the IT sector that refers to

INSTITUTE OF COMPUTER EDUCATION

all communication technologies, including the Internet, wireless networks, cell phones, computers, and software.

---

16) Which of the following frequencies is correct for the Galileo gen 2 board?

a. 250 MHz

b. 400 MHz

c. 450 MHz

d. 300 MHz

75

Answer: (b) 400 MHz

Description: The frequency of this board is 400 MHz. The Galileo gen 2 board frequency gives the speed of operation of the board. Therefore, the speed increases as the frequency increases.

17) What is the full form of IANA?

INSTITUTE OF
COMPUTER EDUCATION

a. Inter-Assessment-Number-Access

b. Internet-Association-Numbers-Authority

c. International-Aid-for-Network-Authority

d. Internet-Assigned-Numbers-Authority

Answer: (d) Internet-Assigned-Numbers-Authority

Description: The full form of IANA is Internet-Assigned-Numbers-Authority. It is an administrative function of the Internet that monitors the IP addresses and domain names.

---

18) What is the standard port number of secure MQTT?

a. 1883

b. 8000

c. 8883

d. 8888

Answer: (c) 8883

76

INSTITUTE OF
COMPUTER EDUCATION

Description: The standard port number of Secure MQTT is 8883, and it is registered in IANA for Secure MQTT.

19) Which of the following layers provides end-to-end communication in IoT?

a. Logical layer

b. Data link layer

c. Transport layer

d. Session layer

Answer: (c) Transport layer

Description: The transport layer focuses on end-to-end communication, and it gives reliability and congestion avoidance that packets will be delivered in the same way as the user sent the packet.

INSTITUTE OF COMPUTER EDUCATION

20) Which of the following devices is used to measure the gases or liquid?

a. Optical Sensor

b. Gas Sensor

c. Smoke Sensor

d. Pressure sensor

Answer: (d) Pressure sensor

77

Description: The pressure sensor is used to measure the gases or liquid. Pressure is the expression of a force that is necessary to prevent fluid from expansion.

21) Which interface does the fingerprint sensor use?

a. UART interface

b. CoAP interface

c. SPI interface

INSTITUTE OF
COMPUTER EDUCATION

d. I2P interface

_Answer: (a) UART interface

Description: The fingerprint sensor uses a UART interface to store fingerprint data. It can be configured in 1:1 or 1:N mode to identify the person.

22) Which of the following protocols is used by USART?

a. RS32

b. RS232C

c. 4RS85

d. All of the these

_Answer: (b) RS232C

Description: The most commonly used protocol for USART in asynchronous mode is RS232C. This protocol describes the physical interface for relatively low-speed serial data-communication between devices and computers.

23) What is the full form of HDLC?

a. Higher Data Level Communication

b. Higher Data Link Communication

c. High-level Data Link Control

d. High Data Level Control

Answer: (c) High-level Data Link Control

Description: The full form of the HDLC is High level Data Link Control. It is a communication protocol. It is used to transmit data between nodes and data points.

24) Which of the following "bit" defines the address bit in the control register?

a. ML

b. MM

INSTITUTE OF COMPUTER EDUCATION

c. RXWake

d. None of the these

Answer: (b) MM

80

Description: The MM bit defines the address bit in the control register.

25) What is another name for I2C?

a. Signal wire interface

d.USART

Answer: (b) Two wire interface

Description: The I2C protocol is also known as the two-wire interface. It is a simple serial-communication-protocol that uses pins of a

INSTITUTE OF
COMPUTER EDUCATION

microcontroller, named as serial clock (SCL) and serial data (SDA).

---

26) When the clock line SCL is high, the SDA is ___ transitioned.

a. Low

b. High

c. Medium

d. All of the these

Answer: (a) Low

Description: When the clock line SCL is high, the SDA is low transitioned. Under normal circumstances, this does not happen, as you can see in the subsequent clock pulses that the data line is stable in one state, either high or low, when the clock line is high.

27) Which of the following protocols does the secure digital card application use?

a. XMPP

b. SPI

c. MQTT

d. HTTPS

Answer: (b) SPI

Description: SPI stands for Serial Peripheral Interface. The SPI protocol is commonly used to secure digital card applications and liquid crystal displays.

28) How many logic signals are there in the SPI protocol?

a. Five signals

b. Six signals

c. Nine signals

83 **INSTITUTE OF COMPUTER EDUCATION**

d. Zero signals

Answer: (a) Five signals

29) What does MOSI mean?

a. MOSI is a network line.

b. MOSI is a clock signal that sends the clock signals from master to slave.

c. MOSI is a data line that sends the data from master to slave.

d. None of the these

_Answer: (c) MOSI is a data line that sends the data from master to slave.

Description: MOSI stands for Master Out Slave In. MOSI is a data line that sends the data from master to slave.

---

30) What is the full form of HART?

INSTITUTE OF COMPUTER EDUCATION

a. Highway Application Remote Transport

b. Highway Addressable Remote Transducer

c. High Address Reduce Transport

d. High Application Remote Transport

. Answer: (b) Highway Addressable Remote Transducer

31) What is the range of z-wave?

a. 30 to 100 m

b. 300 to 1000 m

c. 100 to 1000 m

d. Only 10 m

Answer: (a) 30 to 100 m

Description: The Z-Wave is a low-power Mac protocol designed especially for smart home and small business domains. It covers the range from 30 to 100 m.

INSTITUTE OF COMPUTER EDUCATION

32) Which of the following topology is used for ZigBee Smart Energy?

a. Bus Topology

b. Ring Topology

c. Star Topology

d. Any Topology

Answer: (c) Star Topology

Description: ZigBee Smart Energy is designed for a wide range of IoT applications. It supports a wide range of network topologies, such as star topology.

33) Which of the following protocols does not exist at the data link layer?

a. ZigBee Smart Energy

b. LoRaWAN

INSTITUTE OF COMPUTER EDUCATION

c. WirelessHART

d. Secure MQTT

_Answer: (d) Secure MQTT

Description: Secure MQTT is a session layer protocol. It is an extended version of the MQTT protocol that uses encryption based on lightweight attribute-based encryption

34) Which of the following is the type of SPI controller?

a. Micro-wire or plus

b. Microwire

c. Data SPI

d. Queued SPI

_Answer: (d) Queued SPI

Description: A Queued SPI is a type of SPI controller that is used to send a data queue from the SPI bus.

35) What is MQTT primarily used for?

a. User communication

b. System transfer

c. Machine to Machine Communication

d. Create connection

. **Answer:** (c) Machine-to-Machine Communication

36) What is the frequency rate of z-wave?

a. 908.42 GHz

b. 928.49 GHz

c. 888.42 GHz

d. 708.49 GHz

Answer: (a) 908.42 GHz

Description: The frequency rate of z-wave is 908.42 GHz. The Z-Wave is a low-power Mac protocol

INSTITUTE OF COMPUTER EDUCATION

designed especially for smart home and small business domains.

37) What is another name of the tactile sensor?

a. Weight sensor

b. Imaging sensor

c. Proximity sensor

d. Touch sensor

88

nswer: (d) Touch sensor

Description: The tactile sensor is also called a touch sensor. It is an electronic sensor used for detecting

38) How many types of capacitive touch sensors in IoT?

a. Two types

b. Five types

INSTITUTE OF COMPUTER EDUCATION

c. Seven types

d. Nine types

Answer: (a) Two types

Description: Two types of capacitive touch sensors in IoT:

- Projected-capacitive sensing
- Surface-capacitive sensing

39) Which of the following touch sensors is used in a cell phone?

a. Resistive touch sensors

b. Human sensor

c. Capacitive touch sensor

d. Follow sensor

Answer: (c) Capacitive touch sensor

Description: The capacitive touch sensors are widely used in portable devices such as cell phones. The main reason for this sensor development on the phone is low cost, durability, and design.

---

40) Which of the following languages does GSN work on?

a. Python

b. JAVA

c. Android

d. C++

Answer: (b) JAVA

Description: GSN stands for Global Sensor Network. GSN works on JAVA language because JAVA language is portable in nature. The other language (such as C, C++, Python, and HTML) is not portable in nature.

41) Which of the following is the example of a short-range wireless network?

a. VPN

b. Wi-Fi

c. Internet

d. WWW

e. **Answer:** (b) Wi-Fi

f. **Description:** Short-range wireless networks have a very short range. This type of network is used for applications running in the local environment. Examples of this network are Wi-Fi and Bluetooth.

1.1 Microcontroller used in Arduino UNO prototyping board is
Ans- ATmega328p
1.1 Arduino UNOप्रोटोटाइप बोर्ड में प्रयुक्त माइक्रोकंट्रोलर
Ans- ATmega328p

1.2 With respect to the body language, the handshake conveys the confidence is
Ans- Firm
1.2 शरीर की भाषा के संबंध मे हैडशेक विश्वास व्यक्त करता है।
Ans- फर्म

1.3 Which of the following is not a standard protocol used in IoT domain.
Ans- LoMe
1.3 निम्न मे से कौन IoT डोमेन मे उपयोग किया जाने वाला एक मानक प्रोटोकॉल नहीं है।
Ans- लोमी

1.4 Which of the following is not a main element of IoT
Ans- People
1.4 निम्नलिखित मे से कौन IoT का मुख्य एलीमेंट नहीं है
Ans- पीपुल

1.5 Which symbol is used in Arduino to calculate Module
Ans- '%'
1.5 मॉड्यूल की गणना करने के लिए Arduino में किस प्रतीक का उपयोग किया जात है।
Ans- '%'

1.6 To easily interface add-on modules with Arduino we can use
Ans- Arduino shields
1.6 Arduino के साथ एड-ऑन मॉड्यूल को आसानी से इंटरफेस करने के लिए हम उपयोग कर सकते हैं
Ans- आईड्यूनो शील्ड्स

1.7 Botnet is often used to launch _____ attack
Ans- DDoS
1.7 बोटनेट का उपयोग अक्सर............... हमले शुरु करने के लिए किया जाता है।
Ans- डी डाॅस

1.8 The IIoT stands for
Ans- Industrial Internet of Things
1.8 IIoT का पूर्ण रुप है
Ans- इंडस्ट्रियल इंटरनेट आफ थिंग्स

1.9 The default method(s) in Arduino program is/are
Ans- setup() and loop()
1.9 Arduino प्रोग्राम में डिफॉल्ट विधि (याँ) है/है।
Ans- setup() और loop()

1.10 Which of the following communication medium supports highest data rate
Ans- Optical fiber
1.10 निम्नलिखित में से कौन सा संचार माध्यम उच्चतम डेटा दर का समर्थन करता है
Ans- आप्टिकल फाईबर

2. Each statement below is either TRUE or FALSE.
नीचे दिया गया प्रत्येक विवरण या तो सही या गलत है। (1x10=10)

2.1. The total resistance of resistor is low when connected in series

2.1. The total resistance of resistor is low when connected in series
A) TRUE
2.1 श्रृंखला में जुड़े होने पर अवरोधक का कुल प्रतिरोध कम होता है।
A) सत्य

2.2. Microprocessor has only processing capability, no serial interface or interrupts are available
A) TRUE
2.2 माइक्रोप्रोसेसर में केवल प्रोसेसिंग क्षमता है. कोई सीरियल इंटरफेस या इंटरप्ट उपलब्ध नहीं है।
A) सत्य

2.3. Time management is primarily creating an environment conducive to effectiveness
A) TRUE
2.3 समय प्रबंधन मुख्य रूप से प्रभावशीलता के लिए अनुकूल वातावरण तैयार कर रहा है।
A) सत्य

2.4. Mirai botnet attack was originated from IoT cameras
B) FALSE
2.4 मिराई बॉटनेट हमले की शुरुआत IoT कैमरों से हुई थी।
B) असत्य

2.5. In ATmega328p, p stands for pico power
A) TRUE

3

2.5 ATmega328p में P पिको पावर के लिए स्टैंड करता है
A) सत्य

2.6. Arduino program statement for generating one second delay is - delay(100)
B) FALSE
2.6 एक सेकंड देरी उत्पन्न करने के लिए Arduino प्रोग्राम का स्टेटमेंट है - delay(100)
B) असत्य

2.7. Stress is an emotional reaction to physical and psychological demands
A) TRUE
2.7 तनाव शारीरिक और मनोवैज्ञानिक मांगों के लिए एक भावनात्मक प्रतिक्रिया है
A) सत्य

2.8. Ohms law calculates the power consumed by an electrical appliance
A) TRUE
2.8 ओम ला एक विद्युत उपकरण द्वारा खपत शक्ति की गणना करता है।
A) सत्य

2.9. IIoT targets applications related to health and fitness
A) TRUE
2.9 IIoT स्वास्थ्य और फिटनेस से संबंधित एप्लीकेशनों को लक्षित करता है।
A) सत्य

2.10. Capacitor blocks AC and allows DC to pass through
B) FALSE
2.10 कैपेसिटर एसी को ब्लॉक करता है और डीसी को गुजरने की अनुमति देता है।
B) असत्य

3. Match words and phrases in column X with the closest related meaning of word(s)/phrase(s) in column Y.
कालम X में दिये गए शब्दों और वाक्यों का मिलान कालम Y में दिये गए निकटतम संबंधित अर्थ/शब्दों वाक्यों से करें।

3.1. Default bootloader for Arduino.
Ans- Optiboot
3.1 Arduino के लिए डिफॉल्ट बूटलोडर
Ans- Optiboot

3.2. PWM pins in Arduino UNO.
Ans- 6
3.2 Arduino UNO में PWM पिन करता है।

Ans- 6

3.3. Informal Communication.

Ans- Grapevine

3.3 अनौपचारिक संचार

Ans- Grapevine

3.4. Analog Read method in Arduino UNO returns value range1999

Ans- 0-1023

3.4 Arduino UNO मे एनालॉग रीड मेथड वैल्यू में रेज

Ans- 0-1023

3.5. Open source Operating System

Ans- Linux

3.5 ओपेन सोर्स ऑपरेटिंग सिस्टम

Ans- linux

3.6. Program written in Arduino IDE

Ans- sketch

3.6 प्रोग्राम Arduino IDE मे लिखा गया है।

Ans- sketch

3.7. The term 'IoT' was coined in

Ans- 1999

3.7 'IoT' शब्द को गढ़ा गया था ।

Ans- 1999

3.8 Single line comment

Ans- //

3.8 सिंगल लाईन कमेंट

Ans- //

3.9. Analog Write method in Arduino UNO accepts value range

Ans- 0-255

3.9 Arduino UNO में एनालॉग राईट विधि मान श्रेणी को स्वीकार करता है।

Ans- 0.255

3.10. Function called once in Arduino program

Ans- Setup()

3.10 Arduino प्रोग्राम मे एक बार बुलाया जाने वाला फंक्शन

4

Ans- Setup()

4. Each statement below has blank space to fit one of the word(s) or phrase(s) in the Ist below. Choose the most appropriate option, enter your choice in the "OMR" answer sheet supplied with the question paper, following instructions therein.

नीचे दिये गए प्रत्येक वाक्य मे नीचे दी गई सूची से एक शब्द या वाक्य को लिखने के लिए रिक्त स्थान छोड़ा गया है। सबसे उपयुक्त विकल्प चुनें और उसमे दिये गए अनुदेशों का पालन करते हुए अपने विकल्प प्रश्न पत्र के साथ दिये गए "ओएमआर" उत्तर पत्रक मे दर्ज करें। (1x10=10)

4.1. ___ IC contains memory, input-output peripherals along with processing capability.

Ans- Microcontroller

4.1 ....आईसी में प्रोसेसिंग क्षमता के साथ मेमोरी इनपुट आउटपुट परिधीय होते हैं

Ans- माइक्रोकंट्रोलर

4.2 Analog Write method is used for _____ pins in Arduino.

Ans- PWM

4.2 Arduino में ------------------------पिन के लिए एनालॉग लिखने की विधि को उपयोग किया जाता है।

Ans- पी डब्ल्यू एम

4.3 The term Internet of Things was first coined by

4.3 इंटरनेट ऑफ थिंग्स शब्द सबसे पहले .... द्वारा खोजा गया था।

Ans- केविन एस्टन

4.4 Modern PC has _____ as main component in CPU

Ans- Microprocessor

4.4 सीपीयू के मुख्य घटक के रुप में आधुनिक पीसी में .... है।

Ans- माइक्रोप्रोसेसर

4.5 _____ is medium weighted extension of cloud computing in IoT domain

Ans- Fog Computing

4.5 ....आईओटी डोमेन में क्लाउड कंप्यूटिंग का मध्यम भारित विस्तार ।

Ans- फॉग कम्प्यूटिंग

4.6 _____ is designed to launch botnet attacks from IoT

Ans- mirai

4.6 ....IoT से बॉटनेट हमलों को लॉन्च करने के लिए डिजाइन किया गया है।

Ans- मिराई

4.7 The founder of Arduino project is _____

Ans- Massimo Banzi

4.7 Arduino प्रोजेक्ट के संस्थापक .... है।

Ans- मासिमो बान्जी

4.8 Personality is derived from Latin word – persona meaning _____

Ans- Mask

4.8 Personality लैटिन शब्द से लिया गया है - persona जिसका अर्थ..........

Ans- मास्क

4.9 The statement describing what has happened is called _____ ____

Ans- Report

4.9 जो हुआ है उसका वर्णन .... कहा जाता है।

Ans- रिपोर्ट

4.10 _____ board of Arduino family can be used to sewn into clothing

Ans- Lilypad

4.10 Arduino परिवार के _____ बोर्ड का उपयोग कपड़ों में सिलने के लिए किया जा सकता है

Ans- लिलिपैड

1.1 The huge numbers of devices connected to the Internet of things have to communicate automatically is called.
Ans- Machine to Machine
1.1 इंटरनेट आफ थिंग्स से जुड़ी बड़ी संख्या मे उपकरणों को स्वचालित रूप से संचार करना होता है।
Ans- मशीन टू मशीन

1.2 Which transport layer protocols is used by DHCP?
Ans- UDP
1.2 डीएचसीपी द्वारा किस ट्रांसपोर्ट लेयर प्रोटोकॉल का उपयोग किया जाता है
Ans- यूडीपी

1.3 Which of the following is not a main element of IoT
Ans- People
1.3 निम्नलिखित में से कौन IoT का मुख्य तत्व नहीं हैं
Ans- पीपुल

1.4 Which sensor is used in mobile phones?
Ans- Humidity sensor
1.4 मोबाइल फोन मे किस सेंसर का उपयोग किया जाता है
Ans- आर्द्रता सेंसर

1.5 Global Sensor Network is built for ____
Ans- Reducing cost and time for development
1.5 ग्लोबल सेंसर नेटवर्क के लिए बनाया गया है
Ans- विकास के लिए लागत और समय को कम करना

1.6 The huge number of devices connected to the Internet of Things has to communicate automatically, not via humans. What is this called?
Ans- Machine 2 Machine
1.6 इंटरनेट ऑफ थिंग्स से जुड़े बड़ी संख्या मे उपकरणों को स्वचालित रूप से संवाद करना पड़ता है, मनुष्यों के माध्यम से नहीं। इसे क्या कहा जाता है?
Ans- मशीन टू मशीन

1.7 MQTT stands for _____
Ans- MQ Telemetry Transport

1.7 MQTT का पूर्ण रूप है।
Ans- एमक्यू टेलीमेट्री ट्रांसपोर्ट

1.8 Which is the core wrapper of GSN?
Ans- ZeroMQWrapper
1.8 जो जीएसएन का मुख्य आवरण है
Ans- जीरो एमक्यू वैपर

1.9 _____ supports low energy radio operation.
Ans- Bluetooth
1.9 ....निम्न ऊर्जा रेडियो संचालन का समर्थन करता है।
Ans- ब्लूटूथ

1.10 Which of these is used as a form of greeting for business people?
Ans- Dear Sir
1.10 इनमे से किसका उपयोग व्यवसायियों के लिए अभिवादन के रूप में किया जाता है?
Ans- श्रीमान

protocol that runs on top of the TCP/IP protocol

A) TRUE

2.11 MQTT को MQ टेलीमेट्री ट्रांसपोर्ट प्रोटोकॉल के रुप में जाना जाता था । MQTT एक हल्का प्रोटोकॉल है जो टीसीपी/आईपी प्रोटोकॉल के ऊपर चलता हैं ।

A) सत्य

2.12. Radio-frequency identification (RFID) is a technology that uses electromagnetic fields to identify objects or tags which contains some stored information

A) TRUE

2.12 रेडियो-फ्रीक्वेंसी आइडेंटिफिकेशन (RFID) एक ऐसी तकनीक है, जो इलेक्ट्रोमैग्नेटिक फील्ड्स का इस्तेमाल उन ऑब्जेक्ट्स या टैग्स की पहचान करने के लिए करती है, जिनमें कुछ स्टोर की सूचनायें होती है।

A) सत्य

2.13. NFC (Near Field Communication) is a protocol used for enabling simple and safe two-way interactions between electronic devices.

A) TRUE

2.13 एनएफसी (नियर फील्ड कम्युनिकेशन) एक ऐसा प्रोटोकॉल ही जो इलेक्ट्रॉनिक उपकरणों के बीच सरल और सुरक्षित दो-तरफा इंटरैक्शन को सक्षम करने के लिए उपयोग किया जाता है ।

3

A) सत्य

2.14. Resistive touch sensor is used for longer time than capacitive touch sensor

A) TRUE

2.14 प्रतिरोधक टच सेंसर का उपयाग कैपेसिटिव टच सेंसर की तुलना में अधिक समय के लिए किया जाता है ।

A) सत्य

2.15. One of the main characteristics of Linked Stream Data is "Live Streaming

A) TRUE

2.15 लिंक्ड स्ट्रीम डेटा की मुख्य विशेषताओं में से एक लाइव स्ट्रीमिंग है ।

A) सत्य

2.16. A function is a piece of code that can be used from elsewhere in a sketch

A) TRUE

2.16 एक फंक्शन कोड का एक भाग है जिसे एक स्केट में कही और से उपयोग किया जा सकता है ।

A) सत्य

2.17. Where possible and suitable, delegate responsibility to others to reduce pressure on yourself in difficult situations.

A) TRUE

2.17 जहां संभव हो और उपयुक्त हो, कठिन परिस्थितियों में खुद पर दबाव कम करने के लिए दूसरों को जिम्मेदारी सौंपें ।

A) सत्य

2.18. MQTT is a lightweight protocol that runs on top of the TCP/IP protocol and works with publish subscribe mechanism

A) TRUE

2.18 MQTT एक हल्का प्रोटोकॉल ही जो टीसीपी/आईपी प्रोटोकॉल के शीर्ष पर चलता है और प्रकाशीत सब्सक्राइब मैकेनिज्म के साथ काम करता है ।

A) सत्य

2.19. A pressure sensor is a device that senses pressure and converts it into an electric signal

A) TRUE

2.19 प्रेशर सेंसर एक ऐसा उपकरण है जो दबाव को भांप लेता है और इसे एक इलेक्ट्रिक सिग्नल में बदल देता है ।

A) सत्य

2.20. Etiquette is also known as the science of living. It is defined as the good behaviour which helps distinguishing human beings from animals

21. Process of keeping track of Users Activity in IoT ecosystem

Ans- Authentication

IoT पारिस्थितिकी तंत्र में उपयोगकर्ता गतिविधि पर नजर रखने की प्रक्रिया

Ans- आथेन्टिकेशन

22. Which is a modular and cloud based platform

Ans- Eclipse Kapua

जो एक मॉड्यूलर और क्लाउड आधारित प्लेटफॉर्म है

Ans- ईक्लिप्स कपूआ

23. Which touchscreen technology does not incorporate an overlay

Ans- Infrared

टचस्क्रीन तकनीक किसमें एक ओवरले शामिल नहीं हैं।

Ans- इंफ्रारेड

24. Tool can be used for Threat Modeling

Ans- TMT 2016

टूल का इस्तेमाल थ्रेट मॉडलिंग के लिए किया जा सकता है।

Ans- TMT 2016

25. Access point is not required

Ans- (In wireless ad-hoc network)

पहुंच बिंदु की आवश्यकता नहीं है।

Ans- (In wireless ad-hoc network)

26. This factor affects development of personality through biological inheritance

Ans- Nature

यह कारक जैविक विरासत के माध्यम से व्यक्तित्व के विकास को प्रभावित करता है

Ans- प्रकृति

4

27. Self-confidence is affected by comparing ourselves to others, or social camparison

Ans- Positively

स्वयं को दूसरों से तुलना करने या सामाजिक तुलना करने से आत्मविश्वास प्रभावित होता है।

Ans- सकारात्मक

28. Cloud gateway facilitates data compression and secure data transmission between

_____

Ans- field gateways and cloud IoT servers

क्लाउड के बीच .... डेटा को कम्प्रेस करने और सुरक्षित डेटा ट्रांसमिशन की सुविधा प्रदान करता है।

Ans- गेटये फील्ड गेटये और क्लाउड IoT सर्वर

29. A program written with the IDE for Arduino is called

Ans- SKETCH

Arduino के लिए IDE साथ लिखे गए एक प्रोग्राम को कहा जाता है।

Ans- SKETCH

30. What is source shell (SSH)

Ans- A Network Protocol

सोत कवच (SSH) क्या है।

Ans- एक नेटवर्क प्रोटोकाल

31. Ethernet frame consists of _____.

Ans- MAC address

ईथरनेट फ्रेम में .... होते हैं।

Ans- मैक एड्रैस

32. _____ is the Ethernet/LAN cable used in RPi?

Ans- RJ45

.................आरपीआई मै उपयोग किया जाने वाला ईथरनेट/लैन केबल है?

Ans- RJ45

33. _____ is a community that is working together to establish an IoT architecture

Ans- Eclipse IoT

.....................एक समुदाय है जो एक IoT आर्किटेक्चर को स्थापित करने के लिए मिलकर काम कर रहा है।

Ans- ईक्लिप्स आईओटी

34. _____ is like a community that consists of data and monetary flows that helps in connecting enterprises and vendors together

Ans- IoT ecosystem

...........एक समुदाय की तरह है जिसमें डेटा और मौद्रिक प्रवाह होते हैं जो उद्यमों और विक्रेताओं को एक साथ जोड़ने में सहायक होते हैं।

Ans- आईओटी ईकोसिस्टम

35. _____ is monitored using temperature sensor and data is stored / analysed locally

Ans- Room temperature

...........का उपयोग करके कमरे के तापमान की निगरानी की जाती है और डेटा को स्थानीय रूप से संग्रहीत/विश्लेषण किया जाता है।

Ans- रूम तापमान

36. Barometer is which type of sensor_____

Ans- Pressure sensor

बैरोमीटर किस प्रकार का सेंसर है ....।

Ans- प्रेशर सेंसर

37. _____ board allows sewn into clothing
Ans- LilyPad
..........बोर्ड कपड़ों में सिलने की अनुमति देता है।
Ans- लिलिपैड

38. Having self-esteem matters because it gives us the ____
Ans- confidence to try new things
आत्म-सम्मान मायने रखता है क्योंकि यह हमें .... देता है।
Ans- नई चीजों को आजमाने का आत्मविश्वास

39. _____ is the process of indentifying a person before giving an access?
Ans- Authentication
IoT डिवाइस स्वाभाविक रूप से .... खतरों के लिए असुरक्षित हैं।

Ans- आथेन्टिकेशन

40. _____ is an air pollution measuring sensor device. It senses the gases like ammonia nitrogen, butane, propane, Benzene, oxygen, alcohols, aromatic compounds, sulphide and smoke.
Ans- MQ-135
..........एक वायु प्रदूषण मापने वाला सेंसर डिवाइस है। यह अमोनिया, नाइट्रोजन, ब्यूटैन, प्रोपेन, बेंजीन, ऑक्सीजन, अल्कोहल, सुगंधित यौगिकों, सल्फाइड और धुएं जैसी गैसों को महसूस करता है।
Ans- MQ-135

1.1 The temperature and humidity sensor values are printed in _____

Ans- PIP

1.1 तापमान और नमी सेंसर मान .... में मुद्रित होते हैं।

Ans- PIP

1.2 Self-actualization is the process where by individuals

Ans- reach their full potential

1.2 आत्म-बोध वह प्रक्रिया है जिससे व्यक्ति

Ans- अपनी पूरी क्षमता तक पहुँचने

1.3 _____ enables seamless integration of LoWPAN devices with internet leveraging.

Ans- IETF 6LoWPAN

1.3 ....इंटरनेट का लाभ उठाने के साथ LoWPAN उपकरणों के सहज एकीकरण को सक्षम करता

Ans- IETF 6LoWPAN

1.4 IoT security management includes _____

Ans- Security with hardware

1.4 IoT सुरक्षा प्रबंधन में शामिल है।

Ans- हार्डवेयर के साथ सुरक्षा

1.5 The Internet of Things will run on many communication standards. Which of these is not a standard body or protocol?

Ans- Tyrell

1.5 इंटरनेट ऑफ थिंग्स कई संचार मानकों पर चलेगा। इनमें से कौन एक मानक निकाय या प्रोटोकॉल नहीं है?

Ans- टाईरेल

1.6 The IIoT stands for

Ans- Industrial Internet of Things

1.6 IIoT का पूर्ण रूप है।

Ans- इंडस्ट्रियल इंटरनेट आफ थिंग्स

1.7 When it first appeared in English, the word 'personality' referred to what?

Ans- Personhood

1.7 जब यह पहली बार अंगेजी में दिखाई दिया, तो "personality" शब्द किसके लिए भेजा गया!

Ans- पर्सनहुड

1.8 Which category is used in the context of connected cars?

Ans- Group IoT

1.8 कनेक्टेड कारों के संदर्भ में किस श्रेणी का उपयोग किया जाता है?

Ans- ग्रुप आईओटी

1.9 ____ allows us to control electronic components

Ans- RETful API

1.9 ....हमें इलेक्ट्रॉनिक घटकों को नियंत्रित करने की अनुमति देता है

Ans- RETful API

1.10 Which board is first to use microcontroller within build USB?

Ans- Leonardo

1.10 USB बनाने के लिए सबसे पहले कौन सा बोर्ड माइक्रोकंट्रोलर का उपयोग करता है?

Ans- लियोनार्डो

2.11. ZigBee is another IoT wireless protocols has features like the Bluetooth technology.
A) TRUE

2.11 ZigBee एक और IoT वायरलेस प्रोटोकॉल है जिसमे ब्लूट्रथ तकनीक जैसी विशेषताएं हैं।
A) सत्य

2.12. The MQTT protocol is a machine to machine and Internet of thing connectivity protocol.
A) TRUE

2.12 MQTT प्रोटोकॉल एक मशीन टू मशीन और इंटरनेट ऑफ थिंग्स कनेक्टिविटी प्रोटोकॉल है।
A) सत्य

2.13. Communication attacks, which put the data transmitted between IoT devices and servers at risk.
A) TRUE

2.13 संचार हमले, जो IoT उपकरणों और सर्वरों के बीच संचारित डेटा को जोखिम में डालते हैं।
A) सत्य

2.14. Security features must incorporate in the recomeded formate of IoT.
A) TRUE

सा सुविधाओं को IoT के अनुशंसित प्रारूप में शामिल किया जाना चाहिए।

3

2.15. I2C stands for "Inter-integrated circuit" bus. It was developed for television by Philips Semiconductor, 1980.
A) TRUE

2.15 I2C "इंटर-इंटीग्रेटेड सर्किट" बस के लिए है। यह फिलिप्स सेमीकंडक्टर, 1980 द्वारा टेलीविजन के लिए विकसित किया गया था।
A) सत्य

2.16. Stress is an emotional reaction to physical and psychological demands.
A) TRUE

2.16 तनाव शारीरिक और मनोवैज्ञानिक मांगों के लिए एक भावनात्मक प्रतिक्रिया है।
A) सत्य

2.17. An infrared sensor is a sensor which is used to sense certain characteristics of its surroundings by either emitting or detecting infrared radiation.
A) TRUE

2.17 एक इन्फ्रारेड सेंसर एक सेंसर होता है, जो इफ्रारेड रेडिएशन का उत्सर्जन या पता लगाकर उसके परिवेश की कुछ विशेषताओं को समझने के लिए उपयोग किया जाता है।
A) सत्य

2.18. A DC motor is any of a class of rotary electrical motors that converts direct current electrical energy into mechanical energy.
A) TRUE

2.18 एक डीसी मोटर रोटरी विद्युत मोटर्स का एक वर्ग है जो प्रत्यक्ष विद्युत ऊर्जा को यांत्रिक ऊर्जा में परिवर्तित करता है।
A) सत्य

2.19. Ohms law calculates the power consumed by an electrical appliance.
A) TRUE

2.19 ओम ला एक विद्युत उपकरण द्वारा खपत शक्ति की गणना करता है।
A) सत्य

2.20. Libraries are very useful for adding the extra functionality into the Arduino Module.
A) TRUE

2.20 Arduino Module में अतिरिक्त कार्यक्षमता जोड़ने के लिए लाइब्रेरी बहुत उपयोगी हैं।
A) सत्य

21. The name for the hardware used for a RS-232 Serial Interface.

Ans- UART

RS-232 सीरियल इंटरफेस के लिए उपयोग किए जाने वाले हार्डवेयर का नाम है।

Ans- यूएआरटी

22. Which possibility connects the production line to suppliers?

Ans- Connected supply chain

कौन सी संभावना उत्पादन लाइन को आपूर्तिकर्ताओं से जोड़ती है?

Ans- कनेक्टेड सप्लाई चेन

23. It is an open loop control system.

Ans- Field controlled D.C. motor

एक ओपन लूप कंट्रोल सिस्टम है।

Ans- फील्ड कंट्रोल्ड डीसी मोटर

24. It allow bi-directional, full duplex communication between clients and servers.

Ans- WebSocket APIs

यह क्लाइंट और सर्वर के बीच द्वि-दिशात्मक, पूर्ण ड्यूप्लेक्स कम्युनिकेशन की अनुमति देता है।

Ans- WebSocket APIs

25. The function returns a number between 0 and 1023, which represents voltages between0 and 5 volts.

Ans- analogRead()

फंक्शन के लिए लागू वोल्टेज को 0 और 1023 के बीच एक संख्या में पढ़ सकता है, जो कि 0 और 5 वोल्ट के बीच वोल्टेज का प्रतिनिधित्व करता है।

Ans- analogRead()

26. The control action is independent of the output.

Ans- In open loop system

नियंत्रण किया आउटपुट से स्वतंत्र है।

Ans- ओपेन लूप सिस्टम में

27. 'Personality' comes from the Latin persona, meaning.

Ans- mask

'Personality' लैटिन persona से आता है, जिसका अर्थ है

Ans- मास्क

4

n in network layer is transferred in the form of ____.

Ans- Packets

नेटवर्क लेयर में डेटा को ....के रूप में स्थानांतरित किया जाता है।

Ans- पैकेट्स

29. Transmitting and receiving _____ must be set for the same bit speed, character length, parity, and stop bits for proper operation.

Ans- UARTs

..........को संचारित करना और प्राप्त करना एक ही बिट गति, कैरेक्टर लेंथ, समता के लिए निर्धारित होना चाहिए, और उचित संचालन के लिए बिट्स को रोकना चाहिए।

Ans- UARTs

30. This means enhancing and grooming ones outer and inner self to bring about a positive change to your life.

Ans- Personality Development

इसका मतलब है अपने जीवन में सकारात्मक बदलाव लाने के लिए बाहरी और आंतरिक लोगों को खुद को निखारना।

Ans- Personality Development

31. _____ an open source stack for gateways and the edge
Ans- Eclipse Kura

......गेटवे और किनारे के लिए एक खुला सोत स्टैक।

Ans- ईक्लिप्स कपूआ

32. Botnet is often used to launch _____ attack.
Ans- DDoS

बोटनेट का उपयोग अक्सर .... हमले शुरु करने के लिए किया जाता है।

Ans- डीडास

33. ___ function reads the value from the specified analog pin.
Ans- analogRead()

.......यह फंक्शन निर्दिष्ट एनालाग पिन से मान को पढ़ता है।

Ans- analogRead()

34. In Asymmetric key cryptography, the provate key is kept by___
Ans- Receiver

एसिमेट्रिक की क्रिप्टोग्राफी मे, प्रोवेट की .... द्वारा रखी जाती है

Ans- पाने वाला

35. _____ was developed in the United States by the Defence Advanced Research Projects Agency (DARPA) in the 1970s.
Ans- TCP/IP

1970 के दशक मे .... को संयुक्त राज्य अमेरिका में डिफेंस एडवांस्ड रिसर्च प्रोजेक्टस एजेंसी (DARPA) द्वारा विकसित किया गया था।

Ans- टीसीपी/आईपी

36. The message Channel class declares the _____ class attribute that defines the key string.
Ans- command_key

मैसेज चैनल वर्ग कुंजी स्ट्रिंग को परिभाषित करने वाले .... वर्ग विशेषता को घोषित करता है।

Ans- command_key

37. Sample and hold circuit is a _____ circuit.
Ans- Analog device

सैम्पल और होल्ड सर्किट एक .... सर्किट है।

Ans- एनालाग डिवाइस

38. The statement describing what has happened is called _____
Ans- Report

जो हुआ है उसका वर्णन ...... कहा जाता है।

Ans- रिपोर्ट

38. The statement describing what has happened is called _____

Ans- Report

जो हुआ है उसका वर्णन .... कहा जाता है।

Ans- रिपोर्ट

39. An automatic toaster is a _____ loop control system.

Ans- Open

एक स्वचालित टोस्टर एक .... लूप नियंत्रण प्रणाली है।

Ans- ओपेन

40. An _____ can detect Infrared radiation that is not visible with naked eyes. A body when heated radiates infrared light which can be detected by IR Sensor.

Ans- IR Sensor

.........एक इन्फ्रारेड रेडिएशन का पता लगा सकता है जो नग्न आंखों से दिखाई नहीं देता है। एक शरीर जब गर्म होता है, तो यह अवरक्त प्रकाश का रेडिएशन करता है, जिसे IR सेंसर द्वारा पता लगाया जा सकता है।

Ans- आईआर सेंसर

1.1 Which of the Following is a protocol related to IoT
Ans- CoAP
1.1 निम्नलिखित में से कौन IOT से संबंधित एक प्रोटोकॉल है
Ans- कोप

1.2 Requests package is very popular _____ Library.
Ans- HTTP
1.2 रिक्वेस्ट पैकेज बहुत लोकप्रिय .... लाइब्रेरी है
Ans- HTTP

1.3 The default method(s) in Arduino program is/are
Ans- setup() and loop()
1.3 Arduino प्रोग्राम में डिफॉल्ट विधि(यों) है/हैं।
Ans- setup() and loop()

1.4 Self-awareness is an important self-assessment tools to determine
Ans- The way you perceive yourself.
1.4 आत्म-जागरूकता निर्धारित करने के लिए एक महत्वपूर्ण आत्म-मूल्यांकन उपकरण है
Ans- जिस तरह से आप खुद को अनुभव करते हैं

1.5 Arduino is called written with IDE Programe?
Ans- Sketch
1.5 Arduino के लिए IDE के साथ लिखे गए एक प्रोग्राम को कहा जाता है?
Ans- स्केच

1.6 With respect to the body language, the handshake conveys the confidence is
Ans- Firm
1.6 शरीर की भाषा के संबंध में, हैंडशेक विश्वास व्यक्त करता है
Ans- फर्म

1.7 What does IDE stand for?
Ans- Integrated Development Environment
1.7 IDE का पूर्ण रूप क्या है?
Ans- इंटीग्रेटेड डेवलपमेंट इनवायरमेंट

1.8 In which of these, more than one candidate is interviewed?
Ans- The group interview

1.8 इनमें से एक से अधिक उम्मीदवारों का साक्षात्कार लिया जाता है?
Ans- ग्रुप साक्षात्कार

1.9 Which of the following communication medium supports highest data rate
Ans- Optical fiber
1.9 निम्नलिखित में से कौन सा संचार माध्यम उच्चतम डेटा दर का समर्थन करता है
Ans- ऑप्टिकल फाईबर

1.10 Which layer represents how various devices are physically connected to the network.
Ans- Physical
1.10 कौन सा लेयर दर्शाता है कि विभिन्न डिवाइस नेटवर्क से फिजिकल रूप से कैसे जुड़े हैं.
Ans- फिजिकल

2. Each statement below is either TRUE or FALSE.
नीचे दिया गया प्रत्येक विवरण या तो सही या गलत है। (1x10=10)

2.11. 'Transceivers' allows the "things" to communicate with other devices over the network using different communication technologies (Wi-Fi, ZigBee, SigFox etc.)
A) TRUE

2.11 ट्रांससीवर्स विभिन्न संचार तकनीकी (वाई-फाई, जिगबी, सिगफॉक्स आदि) का उपयोग करके नेटवर्क पर अन्य उपकरणों के साथ संचार करने के लिए "थिंग्स" की अनुमति देता है।

A) सत्य

2.12. The total resistance of resistor is low when connected in series.

A) TRUE

2.12 श्रृंखला में जुड़े होने पर अवरोधक का कुल प्रतिरोध कम होता है।

A) सत्य

2.13. The delay() causes the Arduino to wait for the specified number of milliseconds before continuing on to the next line.

A) TRUE

2.13 delay() अगली पंक्ति को जारी रखने से पहले Arduino को निर्दिष्ट संख्या में मिली सेकेंड की प्रतीक्षा करने का कारण बनता है।

A) सत्य

2.14. NB-IOT stands for Narrow Band Internet of Things, is an LPWAN i.e. Low Power Wide Area Network technology used for applications requiring low power consumption.

A) TRUE

2.14 NB-IOT का मतलब नैरो बैंड इंटरनेट ऑफ थिंग्स के लिए है, एक LPWAN यानी लो पावर वाइड एरिया नेटवर्क तकनीक का उपयोग कम बिजली की खपत के लिए किया जा सकता है।

A) सत्य

3

2.15. In ATmega328p, p stands for pico power.

A) TRUE

2.15 ATmega328p में, p पिको पावर के लिए स्टैंड करता है।

A) सत्य

2.16. Every Internet of Things design should start with security. Firms should incorporate security into the initial design process.

A) TRUE

2.16 प्रत्येक इंटरनेट ऑफ थिंग्स डिजाइन को सुरक्षा के साथ प्रारंभ करना चाहिए। फर्मों को अपने प्रारंभिक डिजाइन प्रक्रिया में सुरक्षा को भी अनिवार्य रूप से सम्मिलित करना चाहिए।

A) सत्य

2.17. A smoke sensor is a device that senses smoke (airborne particulates & gases), and it's level.

A) TRUE

2.17 एक स्मोक सेंसर एक ऐसा उपकरण है जो धुएं (एयरबोर्न पार्टिकुलेट और गैस) और सेंस में है। वे लंबे समय तक उपयोग में रहे हैं।

A) सत्य

2.18. There are two required functions in an Arduino sketch, setup() and loop().

A) TRUE

2.18 एक Arduino स्केच setup() और loop() में दो आवश्यक फंक्शन हैं।

A) सत्य

2.19. To move data from one point to another, the Transport Layer places it in "packets" which it then delivers.

A) TRUE

2.19 डेटा को एक बिंदु से दूसरे स्थान पर ले जाने के लिए, ट्रांसिपोर्ट लेयर इसे "पैकेट" में रखता है, जिसे वह तब डिलीवर करता है।

A) सत्य

2.20. Z-Wave is a communication protocol specially designed for Home Automation products and it is also known as a low-power RF communications technology.

A) TRUE

2.20 वेब एक संचार प्रोटोकॉल है जिसे विशेष रूप से होम ऑटोमेशन उत्पादों के लिए डिजाइन किया गया है और इसे कम-शक्ति आरएफ संचार प्रौद्योगिकी के रूप में भी जाना जाता है।

A) सत्य

21. What is the sensor/protocol used in GSN.

Ans- CoAP protocol

GSN में प्रयोग किया जाने वाला सेंसर/प्रोटोकॉल क्या है।

Ans- CoAP प्रोटोकाल

22. 'Personality' comes from the Latin persona, meaning.

Ans- mask

'Personality' लैटिन persona से आता है, जिसका अर्थ है

Ans- मास्क

23. The IoT operates at which scale.

Ans- Machine

IOT किस पैमाने पर संचालित होता है

Ans- मशीन

24. Which board is first to use microcontroller within build USB?

Ans- Leonardo

USB बनाने के लिए सबसे पहले कौन सा बोर्ड माइक्रोकंट्रोलर का उपयोग करता है

Ans- लियोनार्डो

25. Which pressure standard is used for gauge.

Ans- Manometer

गेज के लिए किस दबाव मानक का उपयोग किया जाता है

Ans- Manometer

26. The best describes the MQTT protocol.

Ans- Request/Response

सबसे अच्छा MQTT प्रोटोकॉल का वर्णन करता है।

Ans- रिक्वेस्ट/रिस्पान्स

27. It is a set of technologies and protocols that are used primarily in wired LANs.

Ans- Ethernet

यह प्रौद्योगिकियों और प्रोटोकॉल का एक सेट है जो मुख्य रूप से वायर्ड LANs में उपयोग किया जाता है।

Ans- ईथरनेट

4

28. PWM pins in Arduino UNO.

Ans- 6

Arduino UNO में PWM पिन करता है

Ans- 6

29. The Proximity sensor detects metal objects and also indicated level.

Ans- Inductive Proximity Sensor

निकटता सेंसर धातु की वस्तुओं का पता लगाता है और संकेत स्तर भी।

Ans- इंडक्टिव प्रॉक्सिमिटी सेंसर

30. _____ are pre built circuit boards that fit on top of Android.

Ans- Sheilds

........पूर्व निर्मित सर्किट बोर्ड हैं जो एंड्रॉइड के शीर्ष पर फिट होते हैं

Ans- शील्ड्स

31. Personality is derived from Latin word – persona meaning _____

Ans- Mask

Personality लैटिन शब्द से लिया गया है - persona जिसका अर्थ ....

Ans- मास्क

32. Servo motors are geared DC motors with the_____ circuitry incorporated within them.

Ans- Closed-loop

सर्वो मोटर्स को डीसी मोटर्स को बंद कर दिया जाता है, जिसमें .... सर्किटरी शामिल होती है।

Ans- क्लोज्ड-लूप

33. A _____ is an example of an open loop control system.

Ans- washing machine

.... एक ओपेन लूप कंट्रोल सिस्टम का एक उदाहरण है।

Ans- वाशिंग मशीन

34. The interconnection topologies are implemented using _____ as a node.

Ans- Microprocessor

इंटरकनेक्शन टोपोलॉजी को नोड के रूप में .... का उपयोग करके कार्यान्वित किया जाता है।

Ans- माइक्रोप्रोसेसर

35. The computer devices and smart phones that have _____ with pressure sensor.

Ans- Touch screen

कंप्यूटर उपकरण और स्मार्ट फोन जिनमें .... होता है जो दबाव सेंसर के साथ होते हैं।

Ans- टच स्क्रीन

36. _____ is medium weighted extension of cloud computing in IoT domain.

Ans- Fog Computing

.... आईओटी डोमेन में क्लाउड कंप्यूटिंग का मध्यम भारित विस्तार।

Ans- फाग कम्प्यूटिंग

37. __ Returns the number of microseconds since the Arduino board began running the current program.

Ans- micros()

.........Arduino बोर्ड चालू प्रोग्राम चलाने के बाद से माइक्रोसेकेण्ड की संख्या लौटाता है।

Ans- micros()

38. The discrete levels available are_____

Ans- Levels

उपलब्ध असतत स्तर .... हैं।

Ans- लेवल्स

39. Exploring and analyzing options is a part of _____.

Ans- Decision Making

विकल्पों की खोज और विश्लेषण .... का एक हिस्सा है।

Ans- डिसीजन मेकिंग

40. _____ detects metals but along with it can also detect resins, liquids.

Ans- Capacitive Proximity

........धातुओं का पता लगाता है लेकिन इसके साथ ही यह रेजिन, तरल पदार्थों का भी पता लगा सकता है।

Ans- कैपेसिटिव प्राक्सिमिटी

1.1 _____ tags, devices, smart phones useful in identification.

Ans- RFID/NFC

1.1 पहचान में उपयोगी ...... टैग, डिवाइस, स्मार्ट फोन।

Ans- RFID/NFC

1.2 Which sensor is linear and low accuracy?

Ans- Semiconductor based sensor

1.2 कौन सा सेंसर रेखिक और कम सटीकता है?

Ans- सेमीकंडक्टर बेस्ड सेंसर

1.3 Which Protocol interacts asynchronously over UDF?

Ans- CoAP

1.3 कौन सा प्रोटोकॉल UDF पर अतुल्यकालिक रूप से इंटरैक्ट करता है

Ans- CoAP

1.4 ____ allows us to monitor the application.

Ans- Actuators

1.4 .... हमें एप्लिकेशन की निगरानी करने की अनुमति देता है।

Ans- एक्चुएटर

1.5 PIP stands for _____

Ans- Package Management System

1.5 PIP का पूर्ण रूप है

Ans- पैकेज मैनेजमेंट सिस्टम

1.6 The analog signal is ___ in ___

Ans- Continuous, time

1.6 एनालॉग सिग्नल .... में ...... है।

Ans- कंटिनिवस, टाईम

1.7 What does VNC stand for:

Ans- Virtual Network Computing

1.7 VNC का पूर्ण रूप है:

Ans- वर्चुअल नेटवर्क कम्प्यूटिंग

1.8 Which type of motion is transmitted by hydraulic actuators?

Ans- both a and b

1.8 किस प्रकार की गति को हाइड्रोलिक एक्ट्यूएटर्स द्वारा प्रेषित किया जाता है?

Ans- a तथा b दोनों

1.9 Which sensor measures the pressure relative to perfect vacuum?

Ans- Absolute pressure sensor

1.9 कौन सा सेंसर सही वैक्यूम के सापेक्ष दबाव को मापता है?

Ans- एब्साल्यूट प्रेशर सेंसर

1.10 What is DS18B20?

Ans- Temperature sensor

1.10 DS18B20 क्या है?

Ans- तापमान सेंसर

2. Each statement below is either TRUE or FALSE.

नीचे दिया गया प्रत्येक विवरण या तो सही या गलत है। (1x10=10)

2.11. Gas sensors are specifically used to monitor changes of the air quality and detect the presence of various gases.

A) TRUE

2.11 गैस सेंसर विशेष रूप से हवा की गुणवत्ता में परिवर्तन की निगरानी और विभिन्न गैसों की उपस्थिति का पता लगाने के लिए उपयोग किया जाता है।
A) सत्य

2.12. Health information is collected from all the beans implementing Health Indicator interface.
A) TRUE
2.12 हैल्थ इंडिकेटर इंटरफेस को लागू करने वाले सभी बीन्स से स्वास्थ्य जानकारी एकत्र की जाती है।
A) सत्य

2.13. Time management is the process of planning the best way to organize the things.
A) TRUE
2.13 समय प्रबंधन चीजों को व्यवस्थित करने के सर्वोतम तरीके की योजना बनाने की प्रक्रिया है।
A) सत्य

2.14. Positive self-talk is saying positive things about yourself to yourself.
A) TRUE
2.14 पॉजिटिव सेल्फ टॉक में आप अपने बारे में सकारात्मक बातें खुद से कहते हैं।
A) सत्य

2.15. IoT devices require secure identifiers - such as serial numbers - that can be traced back to the device manufacturer and uniquely identify devices.

3

A) TRUE
2.15 IoT उपकरणों को सुरक्षित पहचानकर्ताओं की आवश्यकता होती है - जैसे कि सीरियल नंबर - जो कि डिवाइस निर्माता और विशिष्ट पहचान वाले उपकरणों पर वापस खोजे जा सकते हैं।
A) सत्य

2.16. A hydraulic actuators consists of a cylinder or fluid motor that used hydraulic power to facilitate mechanical operation.
A) TRUE
2.16 हाइड्रोलिक एक्ट्यूएटर्स में एक सिलेंडर या द्रव मोटर होता है जो मैकेनिकल ऑपरेशन को सुविधाजनक बनाने के लिए हाइड्रोलिक पावर का उपयोग करता है।
A) सत्य

2.17. A mechanical actuator converts rotary motion into linear motion to execute some movement.
A) TRUE
2.17 एक यांत्रिक एक्युएटर रोटरी गति को कुछ गति को निष्पादित करने के लिए रैखिक गति में परिवर्तित करता है।
A) सत्य

2.18. Arduino program statement for generating one second delay is - delay(100);
B) FALSE
2.18 एक सेकंड देरी उत्पन्न करने के लिए Arduino प्रोग्राम का स्टेटमेंट है - delay(100)
B) असत्य

2.19. Microprocessor has only processing capability, no serial interface or interrupts are available.
A) TRUE
2.19 माइक्रोप्रोसेसर में केवल प्रोसेसिंग क्षमता है, कोई सीरियल इंटरफेस या इंटरप्ट उपलब्ध नहीं है।
A) सत्य

2.20. A Windows of a smart home can receive an automatic command to open or close depending on the forecasts taken from the weather department.
A) TRUE
2.20 मौसम विभाग से लिए गए पूर्वानुमानों के आधार पर स्मार्ट होम का एक विंडोज एक स्वचालित कमांड को खोलने या बंद करने के लिए प्राप्त कर सकता है।
A) सत्य

21. Which endpoint shows application health information?

Ans- health

कौन सा समापन बिंदु अनुप्रयोग स्वास्थ्य जानकारी दिखाता है।

Ans- हेल्थ

22. It is the sum of our own ideas, opinions, and feelings about ourselves.

Ans- Self-esteem

यह हमारे अपने विचारों, विचारों और खुद के बारे में भावनाओं का योग है

Ans- आत्म सम्मान

23. _____ is a community that is working together to establish an IoT architecture.

Ans- Eclipse IoT

...... एक समुदाय है जो एक IOT आर्किटेक्चर को स्थापित करने के लिए मिलकर काम कर रहा है।

Ans- ईक्लिप्स आईओटी

24. The special feature of a closed loop control system is.

Ans- Feedback

एक क्लोज्ड लूप नियंत्रण प्रणाली की एक विशेष विशेषता है।

Ans- फीड़बैक

25. Most devastating loss to a company is....

Ans- Loss of data

एक कंपनी के लिए सबसे विनाशकारी नुकसान है

Ans- डेटा की हानि

26. It configures the reference voltage used for analog input.

Ans- analogReference()

एनालाग इनपुट के लिए उपयोग किए जाने वाले रिफरेन्स वोल्टेज को कान्फिगर करता है

Ans- analogReference()

27. The feature of the multi-microprocessor architecture is.

Ans- Task dependent

मल्टी-माइक्रोप्रोसेसर आर्किटेक्चर की विशेषता है

Ans- टास्क डिपेन्डेंट

28. It acts as source for IR radiation.

Ans- IR Transmitter

4

आईआर रेडिएशन के स्रोत के रूप में कार्य करता है।

Ans- आईआर ट्रांसमीटर

29. Function called once in Arduino program.

Ans- Setup()

Arduino प्रोग्राम में एक बार बुलाया जाने वाला फंक्शन

Ans- Setup()

30. It returns the number of microseconds since the Arduino board began running the current program.

Ans- micros()

Arduino चालू प्रोग्राम चलाने के बाद से माइक्रोसेकेण्ड की संख्या लौटाता है।

Ans- micros()

31. _____ calculates the minimum of two numbers and returns the smaller of the two numbers

Ans- min()

...... दो नंबरों की न्यूनतम गणना करता है और दो नंबरों में से छोटा रिटर्न देता है।

Ans- min()

32. If the pin is configured as an INPUT, _____ will enable (HIGH) or disable (LOW) the internal pull-up on the input pin.

Ans- digitalWrite()

यदि पिन को INPUT के रूप में कान्फिगर किया गया है, तो digitalWrite() इनपुट पिन पर आंतरिक पुल-अप को सक्षम (हाई) या अक्षम (लो) करेगा।

Ans- digitalWrite()

33. The statement describing what has happened is called _____

Ans- Report

जो हुआ है उसका वर्णन .... कहा जाता है।

Ans- रिपोर्ट

34. The term Internet of Things was first coined by _____

Ans- Kevin Ashton

इंटरनेट ऑफ थिंग्स शब्द सबसे पहले .... द्वारा खोजा गया था।

Ans- केविन एस्टन

35. _____ stands for Light Dependent Resistor or Photo-resistor, which is a passive electronic component.

Ans- LDR

.... का अर्थ है लाईट डिपेंडेंट रेसिस्टर या फोटो-रेसिस्टर, जो एक निष्क्रिय इलेक्ट्रानिक घटक है।

Ans- एलडीआर

36. The founder of Arduino project is _____

Ans- Massimo Banzi

Arduino प्रोजेक्ट के संस्थापक .... हैं।

Ans- मासिमो बान्जी

37. A ____ is thermally sensitive resistor that exhibits a large change in resistance.

Ans- Thermistor

एक .... थर्मल संवेदी अवरोधक है जो प्रतिरोध में बड़े परिवर्तन को प्रदर्शित करता है।

Ans- थर्मीस्टर

38. _____ calculates the absolute value of a number.

Ans- abs()

.... किसी संख्या के एबसल्यूट वैल्यू की गणना करता है।

Ans- abs()

39. Time management is important to ____.

Ans- Everyone

समय प्रबंधन .... के लिए महत्वपूर्ण है।

Ans- प्रत्येक

40. ____ board of Arduino family can be used to sewn into clothing.

Ans- Lilypad

........सका वर्णन .... कहा जाता है।