Q. No. 1

Which of the following protocol will not require a gateway to communicate with IoT Platforms?

A: Bluetooth Low Energy (BTLE)

B: ZigBee

C: **Wi-Fi**

D: RFID

Q. No. 2

IETF is an acronym for _____ and RFC is an acronym for _____.

A: Internet Engineering Task force & Request for Communication

B: International Engineering Technical Force & Request for Communication

C: **Internet Engineering Task Force and Request for Comments**

D: International Engineering Technical Force & Request for Comments

Q. No. 3

Which communication pattern is followed by MQTT?

A: Peer to Peer

B: **Publish-Subscribe**

C: Request - Response

D: Push-Pull

Q. No. 4

MQTT protocol works on which layer of OSI Model?

A: Presentation

B: Session

C: Transport

D   **Application**

Q. No. 5

What are the things that have created perfect storm for building rapid IoT Solutions?

A: Broadband Internet is become more widely available.

B: More devices are being created with Wi-Fi capabilities sensors built into them.

C: Technology costs are going down.

D: All of the above.

Q. No. 6

Which of the following resources of REST is idempotent as well as safe?

A: PUT

B: POST

C: DELETE

D: GET

Q. No. 7

Which interaction model CoAP provides for application endpoints?

A: Request/Response

B: publish and subscribe

C: peer to peer

D   Push and Pull.

Q. No. 8

Socket is a combination of _____.

A: **IP Address + Port Number**

B: MAC Address + Port Number

C: UUID + Port Number

D   IP Address + UUID

Q. No. 9

The minimum header size is _____ whereas maximum header size for TCP protocol is

_____.

A: **20 bytes and 60 bytes**

B: 12 bytes and 40 bytes.

C: 40 bytes and 20 bytes.

D   24 bytes and 36 bytes.

Q. No. 10

What is the indicated type specified inside the socket() system call in UNIX based socket programming for UDP based client –server communication?

A: SOCKET_DGRAM

B: SOCK_DATAGRAM

C: **SOCK_DGRAM**

D   SOCK_STREAM

Q. No. 11

Question:

How many non-overlapping channels are present in Frequency Hoping Spread Spectrum (FHSS) in 2.4 GHZ spectrum?

A: 49.

B: 89.

C: 79.

D   69.

Q. No. 12

Question:

Which of the following channel combination should be selected in case Wi-Fi enabled three routers are operating in the same vicinity to avoid interference in ISM band of 2.4 GHZ?

A.   1. 5, 10

B.   **1, 6, 11**

C.   2, 6, 11

D.   1, 4, 9

Q. No. 13

Question:

Which of the following performs "fragmentation and recombination" in Bluetooth stack?

Answer Choices

A. RFCOMM.

B. **L2CAP.**

C. Host Controller Interface (HCI).

D. Attribute Protocol (ATT).

Q. No. 14

Question:

Which of the following covers the most deployments in mmWave bands?

Answer Choices

A: **24.25–29.5 GHz**

B: 900 MHz to 1800 MHz

C: 700 MHz to 900 MHz

D: 6 GHz to 7 GHz

Q. No. 15

Which of the two frequency bands is used by Dual Band Wi- fi Routers?

A: Both 5 GHz Band

B: Both 2.4GHz Band

C: 2.4 GHz, 5GHz Band

D: 868 MHz, 915MHz Band

Q. No. 16

Question:

110NNNNN. NNNNNNNN. NNNNNNNN. HHHHHHHH Which class of IP does this belong Where: N = network ID bits H = host ID bits

A: Class A

B: Class B

C: Class C

D: Class D

Q. No. 17

Question:

6LowPAN End Nodes Connects to Internet with the help of intermediate entity known as_____?

A: Border Router

B: Access Point

C: Switch

D: Router

Q. No. 18

Question:

What is Bandwidth allocated for NBIoT?

A: 180 MHz

B: 180 KHz

C: 2.4 GHz

D: 900 MHz

Q. No. 19

Question:

Which generation of cellular communication only supports circuit switching?

A: Second Generation (2G)

B: Third Generation (3G)

C: Fourth Generation (4G)

D: **First Generation (1G)**

Q. No. 20

Question:

Which of the following feature of CoAP is used to map request and response?

Answer Choices

A: Token Number

B: Message ID

C: Discovery

D: Observe

Difficulty Level: Difficult

Q. No. 21

Question:

Which of the following provides adaption between upper layer frame and baseband layer frame format in Bluetooth?

A: L2CAP

B: LMP

C: SDP

D: RFCOMM

Q. No. 22

Question:

Which of the following is Low Power Wide Area Network (LPWAN) Solution?

A: Wi-Fi

B: Bluetooth

C: NB-IoT

D: ZigBee

Q. No. 23

Which of the following IEEE standard/technology stack is used by 6LowPAN for transmission and reception of IPV6 packets?

A: IEEE 802.11

B: IEEE 802.3

C: IEEE 802.15.1

D: IEEE 802.15.4

Q. No. 24

Question:

Which of the following virtual career sensing mechanism is used by Wi-Fi (IEEE 802.11) protocol to avoid collisions?

A: Network Allocation Vector (NAV)

B: Request to Send (RTS)

C: Clear to Send (CTS)

D: CSMA/CA

Q. No. 25

Question:

Which of the following encryption method is used by Wi-Fi WPA2 security?

Answer Choices

A: AES

B: RSA

C: DSA

D: SHA

Q. No. 26

Logical Port Addressing is Associated with Which of the following layer of OSI Model?

A: Application Layer

B: Transport Layer

C: Session Layer

D: Data Link Layer

Q. No. 27

Who coined the term IoT?

A: Kevin Ashton

B: Mark Weiser

C: Sundar Pichai

D: Jerry yang

Q. No. 28

Fire and Forget mechanism for data communication in MQTT protocol is practiced in
_____.

A: QOS - 2

B: QOS - 1

C: QOS - 3

D: QOS - 0

Q. No. 29

Which of the following feature of MQTT protocol allows last known good value to be received by subscriber; in case subscriber got disconnected from the broker due to poor network connectivity?

A: **Retain message**

B: Last will and Testament

C: Quality of Service (QoS)

D: Clean Session

Q. No. 30

Which of the following resource of REST/Http1.1 is neither idempotent nor safe?

A: GET

B: PUT

C: POST

D: DELETE

Q. No. 31

Which of the following status code in REST paradigm represents success?

A: 4.X.X

B: 5.X.X

C: 2.X.X

D: 1.X.X

Q. No. 32

Question:

How to identify the acknowledgement of CoAP request using CONFIRMABLE message type?

A: Using Token ID

B: Using Message ID

C: Using Discovery Method

D: Using Observe Method

Q. No. 33

Which of the following system call is used to fetch pending connection request from the queue in Unix Based Socket Programming using TCP protocol?

A: bind ()

B: listen ()

C: socket ()

D: accept ()

Q. No. 34

Question:

Which of the following technique(s) can be used to develop the concurrent server in Unix Based Socket Programming?

A: Using fork() system call

B: Using multithreading technique(s)

C: Using select () system call

D: All of the above.

Q. No. 35

What is the indicated type specified inside the socket() system call in UNIX based socket programming for TCP based client –server communication?

A: SOCKET_DGRAM

B: SOCK_DATAGRAM

C: SOCK_DGRAM

D: SOCK_STREAM

Q. No. 36

Which of the following feature of CoAP can be used to get notification from server to client whenever there is a change in the resource state?

A: Using DISCOVERY method

B: Registering GET method with OBSERVE

C: Using PUT resource

D: Using POST resource

Q. No. 37

Which of the following protocol maintains single TCP connection for bi-directional full duplex communication in client-server communication model?

Answer Choices

A. Http/1.1

B. MQTT

C. CoAP

D. WebSocket

Q. No. 38

Which type of address is not used by IPV6?

A. Broadcast

B. Multicast

C. Anycast

D. Unicast

Q. No. 39

Long Term Evolution (LTE) is which generation cellular technology?

Answer Choices

A: 3rd Generation (3G)

B: 2nd Generation (2G)

C: 1st Generation (1G)

D: 4th Generation (4G)

Q. No. 40

Which of the following IEEE 802.11 standard has highest data rates?

A: 802.11b

B: 802.11ac

C: 802.11ax

D: 802.11g

Q. No. 41

Which of the following IPV4 address is used as a loopback address for testing/hosting internal application only on the host machine?

A: 192.168.0.1

B: 127.0.0.1

C: 10.0.17.2

D: 172.17.0.1

Q. No. 42

Question:

6LowPAN is based on _____ addressing scheme?

A: IPV4

B: EPC

C: IPV6

D: UUID

Q. No. 43

Which of the following character is used as a single level wild cards in MQTT?

A: +

B: #

C: $

D: @

Q. No. 44

ZigBee protocol takes benefit of Physical and data link layer of _____ standard.

A: IEEE 802.11

B: IEEE 802.15.4

C: IEEE 802.3

D: IEEE 802.16

Q. No. 45

Bluetooth Low Energy uses which of the following profile for connection and advertising?

Answer Choices

A: GATT

B: ATT

C: GAP

D: L2CAP

Q. No. 46

Question:

Max how many active devices can be part of piconet?

A: 512

B: 8

C: 16

D: 1024

Q. No. 47

Question:

Which of the following protocol is used by Bluetooth for serial communication and is emulation of RS232 serial ports over the L2CAP protocol?

A: TCS-BIN

B: OBEX

C: SDP

D: RFCOMM

Q. No. 48

Question:

Which of the following link is used for voice traffic in Bluetooth?

A: Synchronous Connection Oriented (SCO)

B: Asynchronous Connection Less (ACL)

C: RFCOMM

D: Host Controller Interface (HCI)

Q. No. 49

Question:

Which of the following IEEE standard is used to add wireless access in vehicular environments (WAVE)?

A: IEEE 801.11ac

B: IEEE 802.11ax

C: IEEE 802.11 a

D: IEEE 802.11p

Q. No. 50

Which of the following wireless technology consumes less power for data communication?

A: Bluetooth

B: Bluetooth Low Energy (BTLE)

C: Wi-Fi

D: ZigBee