

1. _____ allows us to control electronic components
 - a) RETful API
 - b) RESTful API
 - c) HTTP
 - d) MQTT
 Answer: a

2. MQTT stands for _____
 - a) MQ Telemetry Things
 - b) MQ Transport Telemetry
 - c) MQ Transport Things
 - d) MQ Telemetry Transport
 Answer: d

3. MQTT is better than HTTP for sending and receiving data.
 - a) True
 - b) False
 Answer: a

4. MQTT is _____ protocol.
 - a) Machine to Machine
 - b) Internet of Things
 - c) Machine to Machine and Internet of Things
 - d) Machine Things
 Answer: c

5. Which protocol is lightweight?
 - a) MQTT
 - b) HTTP
 - c) CoAP
 - d) SPI
 Answer: a

6. PubNub publishes and subscribes _____ in order to send and receive messages.
 - a) Network
 - b) Account
 - c) Portal
 - d) Keys
 Answer: d

7. By clicking which key the PubNub will display public, subscribe, and secret keys.
 - a) Pane
 - b) Demo Keyset
 - c) Portal
 - d) Network
 Answer: b

8. The messageChannel class declares the _____ class attribute that defines the key string.
 - a) command_key
 - b) command-key
 - c) commandkey
 - d) Key_command
 Answer: a

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

10. _____ 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
 Answer: a

11. _____ 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
 Answer: d

12. _____ specifies the function that will be called on an error event.
 - a) Callback
 - b) Error
 - c) Connect
 - d) Reconnect
 Answer: b

13. _____ Specifies the function that will be called when a successful connection with the PubNub cloud.
 - a) Callback
 - b) Error
 - c) Connect
 - d) Reconnect
 Answer: c

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

- b) Error
 - c) Connect
 - d) Reconnect Answer: d
15. _____ specifies the function that will be called when the client disconnects.
- a) Callback
 - b) Error
 - c) Connect
 - d) Disconnect Answer: d
16. What is the java extension file in IoT?
- a) .jar
 - b) .c
 - c) .exe
 - d) .py Answer: a
17. Do we run our program in the same computer where we have written?
- a) True
 - b) False
 - c) May or may not
 - d) Cannot be determined Answer: c
18. Publish command message is sent from _____
- a) Only publisher to broker
 - b) Only broker to publisher
 - c) Publisher to broker and broker to publisher
 - d) Server to client Answer: c
19. The message is sent to the input queue of a message flow that contains a _____
- a) Subscriber
 - b) Server
 - c) Publication node
 - d) Client Answer: d
20. Does user has authority for all topics.
- a) True
 - b) False Answer: b
21. ROSTOPIC uses _____ at the command line for representing the content of the message.
- a) YAML_syntax
 - b) rostopic bw
 - c) rostopic delay
 - d) rostopic echo Answer: a
22. Which command displays the band width?
- a) rostopic hz
 - b) rostopic delay
 - c) rostopic echo
 - d) rostopic bw Answer: d
23. rostopic delay will provide delay for _____
- a) Topics which has header
 - b) Topics which has tail
 - c) Topics which has tail and head
 - d) To all topics Answer: a
24. Which command displays messages published to a topic?
- a) rostopic bw
 - b) rostopic delay
 - c) rostopic echo
 - d) rostopic hz Answer: c
25. Which command finds out the topic?
- a) rostopic bw
 - b) rostopic delay
 - c) rostopic echo
 - d) rostopic find Answer: d
26. The number of elements in the Open IoT Architecture?
- a) 6 elements
 - b) 8 elements
 - c) 7 elements
 - d) 3 elements Answer: c
27. Global Sensor Network is built for _____
- a) Reducing cost and time for development
 - b) Reducing cost and increasing time for development
 - c) Increasing cost and increasing time for development
 - d) Increasing cost and decreasing time for development Answer: a
28. One of the main characteristics of Linked Stream Data is "Live Streaming".
- a) True
 - b) False Answer: a

29. The huge number of devices connected to the Internet of Things has to communicate automatically, not via humans. What is this called?
- Skynet
 - Bot 2 Bot
 - Machine 2 Machine
 - Intercloud Answer: c
30. Internet of Things needs a lot of network connection. What is the proposed "white Space" radio standard called?
- Bluetooth
 - WiMax
 - Weightless
 - Zigbee Answer: c
31. What is the sensor/protocol used in GSN?
- HTTP protocol
 - CoAP protocol
 - MQTT protocol
 - XMPP protocol Answer: b
32. Which is the core wrapper of GSN?
- Serial
 - UDP
 - GPSTest
 - ZeroMQWrapper Answer: d
33. Open IoT ontology is extending the W3C SSN ontology which supports the description of the physical and processing structure of sensors.
- True
 - False Answer: a
34. Open IoT manages the registration, data acquisition, deployment of sensors and interconnected of objects, through which network?
- GSN
 - X-GSN
 - LSM
 - HTTP Answer: b
35. Which environment does Global Sensor Network work on?
- C++
 - JAVA
 - HTML
 - C Answer: b
36. _____ is a community that is working together to establish an IoT architecture.
- Eclipse IoT
 - Red Hat
 - Intercloud
 - Bot 2 Bot Answer: a
37. _____ provides a middleware and application container for IoT gateway.
- Eclipse Kura
 - Red Hat
 - Intercloud
 - Bot 2 Bot Answer: a
38. _____ is a modular and cloud based platform.
- Eclipse Kura
 - Red Hat
 - Intercloud
 - Eclipse Kapua Answer: d
39. Kapua also provides a core integration framework.
- True
 - False Answer: a
40. What is the role of Bigdata in smart grid architecture of IoT?
- Store data
 - Manage data
 - Collect data
 - Security Answer: a
41. What is the role of Cloud in smart grid architecture of IoT?
- Store data
 - Manage data
 - Collect data
 - Security Answer: b
42. What is the role of Gateway in smart grid architecture of IoT?
- Store data
 - Manage data

- c) Collect data
d) Security Answer: c
43. What is the role of Sensor in smart grid architecture of IoT?
a) Store data
b) Manage data
c) Collect data
d) Security Answer: a
44. IoT gateway must provide _____
a) Simple and fast installation
b) Security with hardware
c) Data storage
d) Protocol abstraction Answer: d
45. Which of the following is IoT device manageability?
a) Protocol abstraction
b) Simple and fast installation
c) Security with hardware
d) Data storage Answer: b
46. IoT security management includes _____
a) Protocol abstraction
b) Simple and fast installation
c) Security with hardware
d) Data storage Answer: c
47. IoT data scalability includes _____
a) Protocol abstraction
b) Simple and fast installation
c) Security with hardware
d) Data storage Answer: d
48. What is the example for smart grid edge device for utility?
a) Smart Meters
b) Smart Home
c) Smart Car
d) Smart Collage Answer: a
49. According to the analysis on IoT application frame work, smart grid is divided into _____ layers.
a) 2layers
b) 3 layers
c) 4 layers
d)5 layers Answer: b
50. Monitor target of the smart _____ includes sensor objects in the power link.
a) Perception layer
b) Smart network layer
c) Smart Application layer
d) Data layer
Answer: a
51. _____ layer can be divided into the data access network and the core network.
a) Perception layer
b) Smart network layer
c) Smart Application layer
d) Data layer Answer: b
52. In _____ layer, various application platforms are built as required by the services needs of smart grid.
a) Perception layer
b) Smart network layer
c) Smart Application layer
d) Data layer Answer: c
53. ICT stands for _____
a) Information and Communication Technology
b) Internet and Communication Technology
c) Internet and Communication of Things
d) Information and Communication of Things Answer: a
54. Which protocol is used to link all the devices in the IoT?
a) TCP/IP
b) Network
c) UDP
d) HTTP Answer: a
55. _____ enables seamless integration of LoWPAN devices with internet leveraging.
a) IETF 6LoWPAN
b) IEFT CoAP
c) RFID/NFC
d) IEEE 802.15.4.LoWPAN Answer: a

56. _____ enables open application layer for constrained nodes.

- a) IETF 6LoWPAN
- b) IETF CoAP
- c) RFID/NFC
- d) IEEE 802.15.4.LoWPAN Answer: b

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

- a) IETF 6LoWPAN
- b) IETF CoAP
- c) RFID/NFC
- d) IEEE 802.15.4.LoWPAN Answer: c

58. _____ supports low energy radio operation.

- a) IETF 6LoWPAN
- b) IETF CoAP
- c) RFID/NFC
- d) Bluetooth Answer: d

59. _____ specification defining the PHY and MAC layer of low power devices.

- a) IETF 6LoWPAN
- b) IETF CoAP
- c) RFID/NFC
- d) IEEE 802.15.4.LoWPAN Answer: d

60. 6LoWPAN Adaption layer contains?

- a) Header compression
- b) Fragmentation
- c) Layer 2 forwarding
- d) Header compression, Fragmentation, and Layer 2 forwarding Answer: d

61. _____ is an application layer protocol for resource constrained devices.

- a) CoAP
- b) HMTP
- c) MQTT
- d) TCP/IP Answer: a

62. Adheres to _____ approach for managing resources and support mapping to HTTP.

- a) RETful
- b) IoT
- c) Restful
- d) RESTful Answer: d

63. _____ resources are identified by Uniform Resource Identifiers.

- a) CoAP
- b) HMTP
- c) MQTT
- d) TCP/IP Answer: a

64. Which protocol interacts asynchronously over UDP?

- a) HMTP
- b) CoAP
- c) MQTT
- d) TCP/IP Answer: b

65. CoAP messages are short.

- a) True
- b) False Answer: a

66. How many messages types are there in CoAP?

- a) 2
- b) 5
- c) 3
- d) 4 Answer: d

67.

Number of methods in CoAP?

- a) 2
- b) 5
- c) 4
- d) 3 Answer: c

68. WSN stands for _____

- a) Wired Sensor Network
- b) Wireless Sensor Network
- c) Wired Service Network
- d) Wireless Service Network Answer: b

69. API enables services portability between _____

- a) Systems
- b) Devices

- c) Networks
d) Services Answer: a
70. Ubiquitous service provision depends on _____
a) QoS
b) Management
c) Interoperability
d) Routing Answer: c
71. API architecture not only includes critical elements but also caters for _____
a) System
b) Devices
c) Network
d) Multi homing Answer: d
72. All portals are embedded into a single supercomputer, known as _____
a) Network
b) Web
c) Internet
d) System Answer: b
73. _____ is uniquely identifiable embedded computing devices.
a) Internet
b) IoT
c) Bigdata
d) Cloud Answer: b
74. Web is a mesh of computers, so too is _____
a) IoT
b) Bigdata
c) Cloud
d) Internet Answer: a
75. Without _____ computers embedded in house keys are worthless.
a) Data
b) Services
c) Both Data and Services
d) Neither data nor services Answer: c
76. _____ Services are the way in which the IoT is connected to data.
a) Cloud
b) Bigdata
c) Internet
d) Network Answer: a
77. APIs are the skybridge.
a) True
b) False Answer: a
78. IoT solutions are at the heart of IDC's view of the _____
a) Three
b) Two
c) One
d) Four Answer: d
79. _____ are the inter connectors.
a) Web
b) Internet
c) Network
d) APIs Answer: d
80. The IoT platforms are mainly divided into how many types
a) 3 types
b) 5 types
c) 4 types
d) 2 types Answer: c
81. In order to promote _____ the government should employ more management.
a) eGovernment related
b) Enterprise-based
c) Company based
d) Business oriented platform Answer: a
82. In order to improve their competitiveness and services assurance, the _____ require independently funded IoT projects.
a) eGovernment related
b) Enterprise-based

- c) Company based
d) Business oriented platform Answer: b
82. The _____ may become an important facilitator and stimulate for the modern economy.
a) eGovernment related
b) Enterprise-based
c) Company based
d) Business oriented platform Answer: d
83. ITS stands for _____
a) Internet Travel Services
b) Internet Transportation Security
c) Intelligent Transportation Security
d) Intelligent Transportation Services Answer: d
84. The autonomous _____ based IoT platforms are used for internal management of the corresponding enterprise.
a) eGovernment related
b) Enterprise-based
c) Company based
d) Business oriented platform Answer: c
85. Does information resource management need to be integrated into market management?
a) True
b) False Answer: a
86. The use of RFID in product logistics may realize automatic acquisition of logistics information.
a) True
b) False Answer: a
87. An IoT _____ center is envisaged as an important part of the generic IoT platform to unify the organization.
a) Individual Information
b) Individual Integration
c) Integrated Information
d) Individual and Integrated Information Answer: c
88. The core element of architecture of smart city is _____
a) Mobile Unified Service
b) Urban Application Platform
c) Management center
d) Integrated Information Provider Answer: d
89. The core element is operated by _____
a) PaaS
b) IoT service Provider
c) SaaS
d) IaaS Answer: b
90. Supplementary platforms in the architecture provide support for these services.
a) True
b) False Answer: a
91. Who will use their own IoT business models?
a) PaaS
b) SaaS
c) IaaS
d) Service provider Answer: d
92. Which approach is used in this architecture?
a) Top down approach
b) Bottom up approach

- c) Top down and Bottom Up
d) Neither Top down nor bottom up Answer: a
93. IoT promotes the creation of IoT terminal industry _____
a) Devices
b) Network
c) Clusters
d) Things Answer: c
94. 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 Answer: a
95. 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
d) Powers off when a person is not present Answer: c
96. It displays when you are close.
a) True
b) False Answer: a
97. Does HomePod allow voice controlling?
a) True
b) False Answer: a
98. 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 Answer: c
99. What is the drawback of using Lockitron?
a) Wastage of more energy
b) Supports in some devices only
c) Won't work at some conditions
d) Tough installation Answer: b
100. Sonos is a system that uses _____ wireless speakers.
a) Wifi
b) Hifi
c) Zigbee
d) Bluetooth Answer: b
101. What is the facility Sonos provides?
a) It provides high quality 3D audio
b) Can here only to a restricted area
c) Call connectivity
d) Choose to play what you want in different rooms Answer: d
102. Smart Fitness clothing mainly has which device?
a) Battery
b) Bluetooth
c) Sensors
d) Internet Answer: c
103. 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 Answer: d
104. IIoT stands for _____
a) Industrial Internet of Things
b) Internet Internet of Things
c) Intelligence Internet of Things
d) Internal Internet of Things Answer: a
105. IIoT is sophisticated.
a) True
b) False Answer: a
106. What does design provide?
a) Technology
b) Ecosystem
c) Technology and ecosystem
d) Digital revolution Answer: c
107. Which possibility ensures load balancing and peak levelling of energy consumption?
a) Transportation and logistics
b) Energy and utilities
c) Automotive
d) Connected supply chain Answer: b
108. Which possibility automatically communicates with other vehicles?
a) Transportation and logistics
b) Energy and utilities
c) Automotive
d) Connected supply chain Answer: c
109. Which possibility connects the production line to suppliers?
a) Transportation and logistics
b) Energy and utilities
c) Automotive
d) Connected supply chain Answer: d
110. Which possibility provides inter connectivity between shop floor and top floor?
a) Transportation and logistics
b) Energy and utilities
c) Plant control flow operation
d) Connected supply chain Answer: c
111. Which possibility is the highest contributor to cost overhead for manufacturing facilities?
a) Transportation and logistics
b) Energy and utilities
c) Plant control flow operation
d) Energy management and resource optimization Answer: d
112. Which axis accelerometer is mostly used in IOT?
a) 2- axis
b) 3- axis
c) 1- axis
d) Combination of all Answer: b
113. Accelerometer is the measurement of _____
a) Velocity/time
b) Energy/time
c) Height/time
d) Angle/time Answer: a
114. What is the use of accelerometer in laptops?

- a) To rotate the screen
 - b) To protect hard drives from damage
 - c) To get the angle on monitor
 - d) To get the linear acceleration Answer: b
115. Are accelerometer used in cars?
- a) True
 - b) False Answer: a
116. How many and what are the parts that are present in the accelerometer sensor?
- a) 1, capacitor sensor
 - b) 3, piezoelectric effect, Analog display, digital display
 - c) 2, piezoelectric effect and capacitor sensor
 - d) 2, Capacitor sensor, digital Display Answer: c
117. The BGM160 gyroscope sensor is fitted with _____ interfaces.
- a) Only SPI
 - b) Only I2C
 - c) SPI and UART
 - d) SPI and I2C Answer: d
118. Gyroscope is used for _____
- a) Anti-theft
 - b) Capacitive proximity sensing
 - c) Gaming
 - d) Angle detection Answer: c
119. Gyroscope is used to measure _____
- a) Linear Acceleration
 - b) Angular velocity
 - c) Angular velocity and linear acceleration
 - d) Linear velocity Answer: b
120. What is the rate noise density of gyroscope?
- a) 0.011 dps/ $\sqrt{\text{Hz}}$
 - b) 0.0011 dps/ $\sqrt{\text{Hz}}$
 - c) 1.11 dps/ $\sqrt{\text{Hz}}$
 - d) 11.1 dps/ $\sqrt{\text{Hz}}$ Answer: a
121. How many sensing structures are there in gyroscope sensor?
- a) Two structures
 - b) Three structures
 - c) Depending on application
 - d) Single structure Answer: d
122. Theory behind working of accelerometer can be understood from _____
- a) Rotary
 - b) Liner
 - c) Newtonian mechanism
 - d) Reciprocating Answer: c
123. _____ is included in a system to provide desirable damping effect.
- a) Speedometer
 - b) Seismic
 - c) Damper
 - d) Dashpot Answer: d
124. Displacement and acceleration are related by fundamental scaling law.
- a) True
 - b) False Answer: a
125. _____ sensor is used for tracking rotation or twist.

- a) Gyroscope
- b) Temperature
- c) Pressure
- d) Proximity Answer: a

126. Ring laser type gyroscope operates based on _____ principle.

- a) Damper
- b) Sagnac
- c) Seismic
- d) Dashpot Answer: b

127. Which devices measures gases or liquid?

- a) Proximity sensor
- b) Pressure sensor
- c) Temperature sensor
- d) Touch sensor Answer: b

128. Which sensor measures the pressure relative to perfect vacuum?

- a) Absolute pressure sensor
- b) Gauge pressure sensor
- c) Vacuum pressure sensor
- d) Differential pressure sensor Answer: a

129. Which sensor measure the pressure relative to atmospheric pressure?

- a) Absolute pressure sensor
- b) Gauge pressure sensor
- c) Vacuum pressure sensor
- d) Differential pressure sensor Answer: b

130. Barometer is which type of sensor_____

- a) Pressure sensor
- b) Touch sensor
- c) Temperature sensor
- d) Humidity sensor Answer: a

131. Touch screen devices use which sensor?

- a) Touch sensor
- b) Temperature sensor
- c) Humidity sensor
- d) Pressure sensor Answer: d

132. What is the stability of pressure sensor?

- a) +/-0.75% FS
- b) +/-0.5% FS
- c) +/- 0.35% FS
- d) +/-0.125% FS Answer: c

133. What is the operating voltage of pressure sensor?

- a) 3.5v
- b) 1.5v
- c) 5v
- d) 3v Answer: d

134. The feature of c39 is its low insertion height.

- a) True
- b) False

Answer: a

136. What is the absolute pressure of c39?

- a) 2.0 bar
- b) 1.5 bar

- c) 1.2 bar
 - d) 1.35 bar Answer: c
137. Which pressure standard is used for gauge?
- a) Dead-weight tester
 - b) Manometer
 - c) Pressure switches
 - d) Stain gauge pressure sensor Answer: b
139. Pressure measured relative to perfect vacuum is termed as _____
- a) Absolute Pressure Measurement
 - b) Differential Pressure Measurement
 - c) Gauge Pressure Measurement
 - d) Both Absolute and Differential Answer: a
140. In which pressure measurement, pressure of two distinct positions are compared?
- a) Absolute Pressure Measurement
 - b) Differential Pressure Measurement
 - c) Gauge Pressure Measurement
 - d) Both Absolute and Differential Answer: b
141. _____ can be defined as a subtype of differential pressure measurement.
- a) Absolute Pressure Measurement
 - b) Differential Pressure Measurement
 - c) Gauge Pressure Measurement
 - d) Both Absolute and Differential Answer: c
142. The computer devices and smart phones that have _____ with pressure sensor.
- a) Automotive Industry
 - b) Industrial
 - c) Aviation
 - d) Touch screen Answer: d
144. In which place the pressure sensor is needed for monitoring gases and their partial pressures.
- a) Touch screen
 - b) Automotive Industry
 - c) Industrial
 - d) Aviation Answer: c
145. What happens when service providers change their operating system and communication protocols?
- a) Inoperability and complexity arises
 - b) Only complexity arises
 - c) Only Inoperability arises
 - d) Nothing arises Answer: a
146. In SOA, Service is termed as _____
- a) Software service
 - b) Network service
 - c) Business service
 - d) Developer service Answer: c
147. Are SOA components loosely coupled.
- a) True
 - b) False Answer: a
148. The SOA architecture is divided into how many layers?
- a) 5 layers
 - b) 2 layers
 - c) 7 layers
 - d) no layers ie., only one layer Answer: b
149. Which layer in SOA delivers messages between applications?

- a) ESB(Enterprise Service Bus)
- b) Service Broker
- c) SOA registry
- d) SOA supervisor Answer: a

150. Which block is the central reference of meta-data for services?

- a) ESB(Enterprise Service Bus)
- b) Service Broker
- c) SOA registry
- d) SOA supervisor Answer: c