

UNIT-3

11. What is the primary benefit of IoT in smart cities?

- A. Creating new parks
- B. Real-time data for better decision-making
- C. Increasing taxes
- D. Building taller buildings

Answer: B) Real-time data for better decision-making

Explanation:

IoT provides real-time data that helps city officials make better decisions about managing resources and services.

12. What is the challenge of IoT implementation in smart cities?

- A. Lack of urban space
- B. Security and data privacy issues
- C. Too many trees
- D. High literacy rates

Answer: B) Security and data privacy issues

Explanation:

Security and data privacy issues are some of the challenges in implementing IoT smart cities as IoT gadgets might be vulnerable to cyberattacks

13. What is the full form of LoRaWAN?

- A. Low Range Wide Area Network
- B. Long Range Wireless Area Network
- C. Low Radiation Wireless Area Network
- D. None of the above

Answer: A) Low Range Wide Area Network

Explanation:

LoRaWAN stands for Long Range Wide Area Network. It is a communication protocol that enables devices to communicate using a wireless technology namely Long Range (LoRa).

14. How many layers are there in the architecture of oneM2M?

- A. Two
- B. Three
- C. Four
- D. Five

Answer: B) Three

Explanation:

The oneM2M architecture has 3 layers, namely

- Application Layer
- Services Layer
- Network Layer

15. Which of the following is/are an IoT-enabling technology?

- A. Cloud Computing
- B. Communication Protocols
- C. Machine Learning
- D. All of the above

Answer: D) All of the above

Explanation:

Cloud computing stores and processes IoT data, communication protocols enable device connectivity, and machine learning empowers devices to analyse data and make informed decisions autonomously.

16. The full form of MQTT is ____.

- A. Message Queue Technology Transfer
- B. Message Queue Telemetry Transport

C. Message Queue Technology Transport

D. None of the above

Answer: B) Message Queue Telemetry Transport

Explanation:

Message Queue Telemetry Transport or MQTT is a lightweight messaging protocol in IoT.

17. At which IoT level does a single device manage sensing, monitoring, actuation, and hosting applications?

A. Level 2

B. Level 3

C. Level 4

D. Level 5

Answer: B) Level 3

Explanation:

In Level 3 IoT, a single device handles sensing, monitoring, actuation, and hosting applications.

18. Which database is commonly used for IoT applications that require real-time data analysis?

A. MySQL

B. PostgreSQL

C. Oracle

D. InfluxDB

Answer: D) InfluxDB

Explanation:

InfluxDB is specifically designed for high-volume, high-velocity data, which makes it a popular choice for IoT applications that involve real-time data analysis.

19. Which feature is a significant advantage of IPv6 over IPv4 in IoT communication?

A. Larger address space

B. Smaller header size

C. Basic security features

D. Limited scalability

Answer: A) Larger address space

Explanation:

IPv6's 128-bit address space allows for virtually limitless addresses, accommodating the growing number of devices in IoT deployments.

20. Which cellular technology is best for IoT projects requiring high data transfer rates?

A. 2G

B. 3G

C. 4G

D. 5G

Answer: D) 5G

Explanation:

5G is the best cellular technology for IoT projects requiring high data transfer rates.

1.the primary function of the _____ pins is to read and write digital signals.

2 The tool used to easily install operating systems on a Raspberry Pi is called _____.

.3 The command used to install packages in Debian-based systems is _____.

4 Raspberry Pi is a type of _____ that integrates all necessary components on a single board.

5 The programming environment commonly used for Python is _____.

6 In GPIO programming, _____ refers to the ability to control multiple devices using a single pin.

7 The _____ command in Linux is used to create a new file.

8 A Python _____ is a reusable piece of code that can be imported into programs.

9 The _____ command is used to check network connectivity.

10 The _____ library is used in Python to handle HTTP requests.