

Unit-2

1. When was the term IoT first coined?

- A. 1995
- B. 1996
- C. 1999
- D. None of the above

Answer: C) 1999

Explanation:

IoT stands for Internet of Things. It was coined in 1999 by the computer scientist Kevin Ashton.

2. How many layers are there in standard IoT architecture?

- A. 4
- B. 5
- C. 6
- D. 7

Answer: B) 5

Explanation:

The IoT architecture has five layers that interact to offer consumers the best services possible.

3. The topmost layer of the IoT architecture is ____.

- A. Application Layer
- B. Network Layer
- C. Communication Layer
- D. Perception Layer

Answer: A) Application Layer

Explanation:

The topmost layer of the IoT architecture is the application layer, which provides an interface that allows users to interact with the IoT system.

4. Once the data sensing is done, ____ are required to facilitate the data transfer.

- A. Sensors
- B. Gateways
- C. Cloud devices
- D. GPS

Answer: B) Gateways

Explanation:

Once we gather data from the sensor, efficient gateways and networks help to transfer data in IoT.

5. In IoT architecture, which layer/layers use networking technologies like 3G, 4G, UTMS, etc. to transfer data?

- A. Application Layer
- B. Perception Layer
- C. Network Layer
- D. All of the above

Answer: C) Network Layer

Explanation:

The network layer receives data from the perception layer and transmits it to the middleware layer using various networking technologies such as 3G, 4G, UMTS, WiFi, and infrared.

6. Which of the following is an advantage of the Internet of Things (IoT)?

- A. Increased human effort
- B. Reduced resource utilisation
- C. Enhanced data collection
- D. Decreased security

Answer: C) Enhanced data collection

Explanation:

The Internet of Things helps gather more information from various devices, making it easier to collect and analyse data.

7. What is a significant disadvantage of IoT?

- A. Simplifies system design and maintenance
- B. Increases privacy concerns
- C. Reduces the amount of personal data shared
- D. Minimizes network attacks

Answer: B) Increases privacy concerns

Explanation:

The Internet of Things can share a lot of personal information without the user actively providing it, which raises privacy concerns.

8. Which of the following is an embedded system hardware component in IoT?

- A. Linux operating system
- B. Motorola 68HC11 microcontroller
- C. Microsoft Office software
- D. Wi-Fi router

Answer: B) Motorola 68HC11 microcontroller

Explanation:

The Motorola 68HC11 microcontroller is an example of embedded system hardware. It is a type of RISC family microcontroller commonly used in embedded systems due to its integrated circuit and internal memory, which allow it to perform specific tasks efficiently.

9. What is the primary function of smart devices within the IoT ecosystem?

- A. To store large amounts of data
- B. To manufacture other devices
- C. To create user interfaces
- D. To send and receive data over networks

Answer: D) To send and receive data over networks

Explanation:

In the IoT ecosystem, smart devices such as smartphones, tablets, and sensors are used to send commands or requests for information and to receive responses.

10. Which components are typically involved in the data transfer process within the IoT ecosystem?

- A. Desktop computers and printers
- B. Cloud Computing and Big Data
- C. Paper documents and physical files
- D. Mechanical switches and knobs

Answer: B) Cloud Computing and Big Data

Explanation:

In the IoT ecosystem, data transfer and communication between smart devices often involve Cloud Computing and Big Data.

- 1 Python was created by -----
- 2 A variable is a named -----used to store data.
- 3 The = operator is used to assign a value to a variable-----
4. The `print()` function is used to display output on the screen.
- 5 The `input()` function is used to take input from the user.
- 6 Python script files are saved with the `.py` extension.
- 7 Python uses **indentation** to define blocks of code instead of curly braces.