

1. Which technology enables efficient communication between devices in the Internet of Things (IoT)?

- a) Machine Learning
- b) Machine-to-Machine (M2M)
- c) Augmented Reality
- d) Blockchain

Answer: b) Machine-to-Machine (M2M)

Explanation: M2M technology facilitates direct communication between devices without human intervention, a fundamental aspect of IoT connectivity.

2. Which of the following allows for centralized management and control of network infrastructure in IoT environments?

- a) Internet Protocol
- b) Software Defined Networking (SDN)
- c) Bluetooth
- d) Wi-Fi

Answer: b) Software Defined Networking (SDN)

Explanation: SDN enables centralized control of network resources, allowing for dynamic configuration and efficient management, which is beneficial for IoT deployments.

3. What does NFV stand for in the context of IoT?

- a) Network Fiber Voltage
- b) Network Function Virtualization

- c) Neural Feedback Visualization
- d) Nano Fiber Vectorization

Answer: b) Network Function Virtualization

Explanation: NFV involves virtualizing network services traditionally performed by dedicated hardware, offering flexibility and scalability in IoT networks.

4. Which technology provides scalable and flexible data storage solutions for IoT applications?

- a) Cloud Computing
- b) Quantum Computing
- c) Edge Computing
- d) Fog Computing

Answer: a) Cloud Computing

Explanation: Cloud-based storage solutions offer scalability and accessibility for vast amounts of data generated by IoT devices.

5. What type of service utilizes cloud infrastructure to provide IoT-related functionalities and capabilities?

- a) Fog Computing
- b) Edge Computing
- c) IoT Cloud Based Services
- d) On-Premise Computing

Answer: c) IoT Cloud Based Services

Explanation: IoT cloud-based services leverage cloud infrastructure to offer various IoT-related functionalities, such as data analytics and device management.

6. Which technology focuses on processing data closer to the data source, reducing latency and bandwidth usage in IoT networks?

- a) Edge Computing
- b) Fog Computing
- c) Cloud Computing
- d) Quantum Computing

Answer: a) Edge Computing

Explanation: Edge computing involves processing data near the source of generation, which is crucial for reducing latency and optimizing bandwidth usage in IoT environments.

7. What is the primary advantage of SDN in IoT deployments?

- a) Increased latency
- b) Centralized management
- c) Limited scalability
- d) Reduced security

Answer: b) Centralized management

Explanation: SDN enables centralized control and management of network infrastructure, which is advantageous for efficient IoT deployment and operation.

8. How does NFV contribute to cost savings in IoT networks?

- a) By increasing hardware dependency
- b) By reducing the need for physical appliances
- c) By limiting network flexibility
- d) By increasing energy consumption

Answer: b) By reducing the need for physical appliances

Explanation: NFV virtualizes network functions, reducing the dependency on physical hardware appliances, thus lowering costs associated with hardware procurement and maintenance.

9. Which technology allows for real-time data processing at the network edge in IoT environments?

- a) Cloud Computing
- b) Fog Computing
- c) Edge Computing
- d) Blockchain

Answer: c) Edge Computing

Explanation: Edge computing enables real-time data processing and analysis at the network edge, enhancing the responsiveness and efficiency of IoT applications.

10. What role does M2M play in IoT ecosystems?

- a) Facilitating communication between humans
- b) Enabling direct device-to-device communication
- c) Providing physical security solutions
- d) Offering cloud-based storage services

Answer: b) Enabling direct device-to-device communication

Explanation: M2M technology enables direct communication between devices without human intervention, forming the backbone of connectivity in IoT ecosystems.