- 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.