1. Which of the following is not a characteristic of a conceptual data model:
   A. Data objects
   B. Properties of data objects
   C. Implementation details
   D. Relationships between objects and cardinalities of relationships

2. John has been told to report to the board of directors with a vendor-neutral enterprise architecture framework that will help the company reduce fragmentation that results from misalignment of IT and business processes. Which of the following frameworks should he suggest?
   A. DoDAF
   B. CMMI
   C. ISO/IEC 42010
   D. TOGAF

4. What takes place at the data link layer?
   A. End-to-end connection
   B. Dialog control
   C. Framing
   D. Data Syntax

5. A characteristic of User Datagram Protocol (UDP) in network communications is:
   A. Packets may arrive out of order
   B. Increased communication latency
   C. Incompatibility with packet broadcast
   D. Error correction may slow down processing

6. Systems that are built on the OSI framework are considered open systems. What does this mean?
   A. They are built with international protocols and standards so they can choose what types of systems they will communicate with.
   B. They are built with internationally accepted protocols and standards so they can easily communicate with other systems.
   C. They do not have authentication mechanisms configured by default.
   D. They have interoperability issues.

7. Which of the following protocols work in the following layers: application, data link, network, and transport?
   A. FTP, ARP, TCP, and UDP
   B. FTP, ICMP, IP, and UDP
   C. TFTP, RARP, IP, and ICMP
   D. TFTP, ARP, IP, and UDP

8. Which best describes the IP protocol?
   A. A connection-oriented protocol that deals with the addressing and routing of packets
   B. A connection-oriented protocol that deals with sequencing, error detection, and flow control
   C. A connectionless protocol that deals with the addressing and routing of packets
   D. A connectionless protocol that deals with dialog establishment, maintenance, and destruction

9. Which of the following OSI layers includes protocols that handle encryption, compression, and processing based on file format extensions?
   A. Layer 8 - User
   B. Layer 7 - Application
   C. Layer 6 - Presentation
   D. Layer 2 - Data Link

10. Use the following scenario to answer this question: Don is a security manager of a large medical institution. One of his groups develops proprietary software that provides distributed computing through a client/server model. He has found that some of the systems that maintain the proprietary software have been experiencing half-open denial-of-service attacks. Some of the software is antiquated and still uses basic remote procedure calls, which has allowed for masquerading attacks to take place.
   What should Don's team put in place to stop the masquerading attacks that have been taking place?
    A. Dynamic packet filter firewall
    B. Secure RPC
    C. ARP spoofing protection
    D. Disable unnecessary ICMP traffic at edge routers

11. Layer 2 of the OSI model has two sublayers. What are those sublayers, and what are two IEEE standards that describe technologies at that layer?
    A. LCL and MAC; IEEE 802.2 and 802.3
    B. LCL and MAC; IEEE 802.1 and 802.3
    C. Network and MAC; IEEE 802.1 and 802.3
    D. LLC and MAC; IEEE 802.2 and 802.3

12. An information system contains three information types, each with impact ratings listed below:
    Information Type 1 = {(Confidentiality, MODERATE), (Integrity, LOW), (Availability, LOW)}
    Information Type 2 = {(Confidentiality, LOW), (Integrity, LOW), (Availability, MODERATE)}
    Information Type 3 = {(Confidentiality, LOW), (Integrity, LOW), (Availability, LOW)}
    What is the security categorization of the information system?
       A. {(Confidentiality, MODERATE), (Integrity, LOW), (Availability, LOW)}
       B. {(Confidentiality, LOW), (Integrity, LOW), (Availability, MODERATE)}
       C. {(Confidentiality, LOW), (Integrity, LOW), (Availability, LOW)}
       D. None of the above

13. Which of the following protocols is considered connection-oriented?
    A. ICMP
    B. TCP
    C. IP
    D. UDP