1. What is the difference between a 32-bit OS and a 64-bit OS?  
   A 32-bit OS processes data in 32-bit chunks and supports up to 4 GB of RAM, while a 64-bit OS processes data in 64-bit chunks and supports larger amounts of RAM for better performance.
2. What is the difference between multitasking and multithreading?  
   Multitasking runs multiple processes simultaneously, whereas multithreading executes multiple threads within a single process to enhance resource efficiency.
3. What is Edge Computing?  
   Edge computing processes data near the source, such as devices or sensors, rather than relying on centralized servers, reducing latency and improving real-time performance.
4. What are Denial of Service (DoS) and Man In The Middle (MITM) attacks?  
   A DoS attack overloads a system to make it unavailable, while an MITM attack intercepts and manipulates communication between two parties without their knowledge.
5. What is a Port Number?  
   A port number identifies specific processes or services on a device, enabling network communication (e.g., port 80 for HTTP, port 443 for HTTPS).
6. Write the command to transfer a file using the FTP protocol.  
   ftp <hostname> to connect, followed by put <file\_name> to transfer the file.
7. What is CIDR?  
   CIDR (Classless Inter-Domain Routing) replaces traditional class-based IP addressing by combining IP addresses and subnet masks for efficient routing and allocation.
8. What is a Netmask?  
   A netmask specifies which part of an IP address represents the network and which part represents the host, helping determine subnet boundaries.
9. Explain a Use Case Diagram.  
   A use case diagram shows system functionality, interactions between users (actors), and use cases, such as "User logs in" or "Admin manages products."
10. List 10 requirements for an ecommerce website.
    1. User registration/login.
    2. Product browsing/search functionality.
    3. Secure payment gateway integration.
    4. Shopping cart feature.
    5. Order tracking.
    6. Product reviews and ratings.
    7. Admin panel for inventory management.
    8. Mobile responsiveness.
    9. Email/SMS notifications.
    10. Discount and coupon management.