

1. Define protocols. Explain the key elements of a protocol. Write any 5 important protocols.
2. Explain the following OSI layers.
 - a) Application Layer
 - b) Transport Layer
3. Explain the following OSI layers.
 - c) Presentation Layer
 - d) sessions Layer
4. Explain the following OSI layers.
 - e) network Layer
 - f) data link Layer
5. Explain the following OSI layers.
 - g) Presentation Layer
 - h) Transport Layer
6. Illustrate with a diagram the 3 actions performed by a network switch.
7. Explain ARP protocol.
8. What is DHCP and why DHCP is used?
9. Explain the working of DHCP with a diagram.
10. Components of DHCP and Advantages of DHCP.
11. How a DNS Resolver Works?
12. What are the different types of TLDs?
13. Explain the key Components of a Zone File.
14. What is a top-level domain (TLD)? What are the different types of TLDs?
15. What Is Authoritative Name Server? What are the two types of Authoritative Name Servers.
16. Differentiate between Authoritative DNS server vs. Recursive DNS server
17. Explain Network Address Translation (NAT).
18. Explain Class A, B and C IP address.
19. Explain the concept of subnetting.