

Question Bank

ADVANCED NETWORKING MCA2

Chapter 1: Overview of Computer Networks

1. What *is* the Internet? What *is* a protocol?
2. What do we mean by the internet as a service?
3. Define three performance Characteristics of the internet and explain Delay in detail
4. List any four access networks that are used to connect end systems to edge routers.
5. Explain the network core and two key functions of the network core
6. Explain the Network under attack
7. Differentiate Packet switching versus circuit switching in a tabular format
8. With a well-labeled diagram explain the packet switching
9. Define the following in brief (2-3 sentences only):
 - a) Authentication
 - b) Confidentiality
 - c) Integrity
 - d) Firewall
10. Explain the TCP/IP protocol layers with a diagram and briefly explain the functions of each layer
11. Explain two types of communication links with 3 examples for each type

Chapter 2: The Application Layer

12. Explain client-server model in network application principle and give three network layer protocols that follows client-server model
13. What is P2P architecture
14. Explain HTTP
15. Why persistent http is better than non-persistent http? Compare in terms of RTT
16. What do the following HTTP response status codes mean:
 - a) 200
 - b) 301
 - c) 400
 - d) 404
 - e) 500
17. Explain cookies and caching in web browsing with examples
18. Explain Email with a diagram showing how email message is shared between Alice and Bod through the internet
19. Explain DNS in detail
20. Explain how DNS resolution works in iterative query and recursive query
21. Explain Bit Torrent operation in P2P architecture

22. Explain video streaming (a major consumer of Internet bandwidth), what are major challenges, and their solution
23. Explain Spatial coding and temporal coding in multimedia with a focus on video
24. What is CBR and VBR in video multimedia
25. Explain in brief Playout buffering and DASH
26. Explain Content Distribution Network