

CSC 404/504: Computer Networks and Communication

Tutorial Questions

- Q 1: Define computer network and list two main goals of networking.
- Q 2: What is the function of a router in a network?
- Q 3: Differentiate between LAN and WAN.
- Q 4: Explain the term 'bandwidth' in networking.
- Q 5: What is noise in signal transmission?
- Q 6: List and explain two types of noise.
- Q 7: Define modulation and give one example.
- Q 8: What is demodulation?
- Q 9: State one advantage of using fiber optic cable over twisted pair cable.
- Q 10: Define multiplexing.
- Q 11: What is Time Division Multiplexing (TDM)?
- Q 12: Differentiate between FDM and TDM.
- Q 13: What is the use of a switch in a network?
- Q 14: Explain parallel transmission.
- Q 15: What is serial transmission?
- Q 16: Differentiate synchronous and asynchronous transmission.
- Q 17: Explain Fourier Analysis in networking.
- Q 18: What are the types of transmission media?
- Q 19: What is attenuation?
- Q 20: Define latency.
- Q 21: What is jitter?
- Q 22: List any two network protocols.
- Q 23: What is packet switching?
- Q 24: Explain the ARPANET.
- Q 25: What is a network topology?
- Q 26: Define bus topology.
- Q 27: What is a loop system in networking?
- Q 28: Differentiate between hardware and software in networking.
- Q 29: What is Netware?
- Q 30: Define error detection.
- Q 31: Give one example of an error detection method.
- Q 32: What is thermal noise?
- Q 33: Define impulse noise.
- Q 34: List any two advantages of using VPN tunneling.
- Q 35: What is Ethernet over IP (EoIP)?
- Q 36: State one function of the OSI model.
- Q 37: What is the main role of the transport layer?
- Q 38: What does IP address stand for?

- Q 39: What is subnetting?
- Q 40: Differentiate IPv4 and IPv6.
- Q 41: What is the purpose of a network protocol?
- Q 42: Explain the difference between unicast, multicast, and broadcast.
- Q 43: What is the purpose of a MAC address?
- Q 44: Define network latency and give one cause.
- Q 45: What is the difference between guided and unguided transmission media?
- Q 46: What is checksum in error detection?
- Q 47: Why is modulation necessary in communication systems?
- Q 48: Define the term propagation delay.
- Q 49: What is a firewall and its function?
- Q 50: Explain the concept of Quality of Service (QoS) in networking.