



# Network

Lec 3: Ch5



## ▼ Questions on Lecture 3

**1. A ..... is a set of rules for communication between computers on a network**

- a) topology
- b) protocol
- c) a & b
- d) none of above

**2. The essential elements of a protocol are .....**

- a) semantics
- b) syntax
- c) timing
- d) all of above

**3. The collection of protocols that define the various interfaces between all the layers is called a .....**

- a) Syntax
- b) Semantics
- c) Protocol stack
- d) none of above

**4. ARP stands for .....**

- a) Address Routing Protocol
- b) Automated Routing Protocol
- c) Address Resolution Protocol
- d) Application Routing Protocol

**5. What does the Address Resolution Protocol (ARP) do?**

- a) Maps a logical address to a physical address
- b) Maps a physical address to a logical address
- c) Identifies routers in a network
- d) Encrypts data packets

إِنَّ اللَّهَ وَمَلَائِكَتَهُ يُصَلِّوْنَ عَلَى النَّبِيِّ يَا أَيُّهَا الَّذِينَ آمَنُوا صَلُوْا عَلَيْهِ وَسَلِّمُوا تَسْلِيْمًا

**6. Why is it necessary to use both a physical address and a logical address for communication between different networks?**

- a) To increase network speed
- b) To ensure proper assignment and routing of addresses
- c) To avoid data packet loss
- d) To enhance security protocols

**7. What is the primary purpose of a physical address (MAC) in a local network?**

- a) To identify devices for local communication
- b) To encrypt data packets
- c) To assign IP addresses to hosts
- d) To monitor data traffic

**8. Which protocol assigns a physical address to a logical address?**

- |         |         |
|---------|---------|
| a) ARP  | b) DNS  |
| c) RARP | d) ICMP |

**9. What are the two protocols mentioned for mapping addresses?**

- |                 |                 |
|-----------------|-----------------|
| a) ARP and ICMP | b) RARP and DNS |
| c) ARP and RARP | d) DHCP and ARP |

**10. What is the function of data packets in a network?**

- a) Encrypting network traffic
- b) Carrying data between networks
- c) Assigning logical addresses to devices
- d) Monitoring physical addresses

## 11. Which protocol assigns a logical address to a logical physical address?

- a) ARP
- b) DNS
- c) RARP
- d) ICMP

## 12. Which of the following is NOT a characteristic governed by network protocols?

- a) Physical topologies
- b) Cable types
- c) Device warranties
- d) Access methods

## 13. What are the essential elements of a protocol

- a) Syntax, semantics, timing
- b) Addressing, syntax, semantics
- c) Timing, encryption, addressing
- d) Syntax, semantics, encryption

## 14. Syntax in a protocol refers to:

- a) Data structure and order of data
- b) Actions based on data
- c) Timing of data delivery
- d) Error correction

## 15. What is the main function of Address Resolution Protocol (ARP)

- a) Assign logical addresses to devices
- b) Map IP addresses to MAC addresses
- c) Encrypt network communication
- d) Manage TCP/IP headers

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**16. Reverse Address Resolution Protocol (RARP) is used to**

- a) Map IP addresses to physical addresses
- b) Assign MAC addresses dynamically
- c) Determine IP addresses using physical addresses
- d) Encrypt logical addresses

**17. Which protocol uses port numbers to support process-to-process communication**

- a) TCP
- b) UDP
- c) IPX
- d) FTP

**18. Which protocol is used for transferring emails between servers**

- a) POP3
- b) IMAP
- c) SMTP
- d) FTP

**19. IMAP is primarily used to:**

- a) Send emails
- b) Download emails locally
- c) Access emails on remote servers
- d) Encrypt email data

**20. HTTP operates at which layer of the OSI model**

- a) Network
- b) Transport
- c) Application
- d) Data Link

**21. FTP uses how many channels for communication**

- a) 1
- b) 2
- c) 3
- d) 4

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**22. In the TCP/IP model, the transport layer is responsible for**

- a) Addressing and routing
- b) Fragmentation and reassembly
- c) Reliable data transfer
- d) Physical transmission

**23. Which layer of the TCP/IP model handles packet addressing and routing**

- a) Application
- b) Transport
- c) Internet
- d) Network interface

**24. TCP/IP is considered**

- a) Stateless
- b) Stateful
- c) Unreliable
- d) Error-free

**25. The most popular LAN architecture for Ethernet uses**

- a) CSMA/CD
- b) Token Ring
- c) FDDI
- d) X.25

**26. What happens if two data sets are transmitted simultaneously in a CSMA/CD network**

- a) Data is retransmitted automatically
- b) Data collides and is destroyed
- c) Data packets are prioritized
- d) Data is routed to an alternate path

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**27. Which protocol is commonly used in VPNs for tunneling**

- a) PPTP
- b) FTP
- c) SMTP
- d) HTTP

**28. ATM handles data at a speed of**

- a) 155 Mbps
- b) 100 Mbps
- c) 200 Mbps
- d) 1 Gbps

**29. SNMP is used for**

- a) Secure data transfer
- b) Network management
- c) Dynamic IP address assignment
- d) File transfer

**30. Which of the following is TRUE about the TCP/IP model compared to the OSI model**

- a) TCP/IP has more layers than OSI
- b) TCP/IP includes error recovery in the physical layer
- c) TCP/IP has only four layers compared to OSI's seven layers
- d) OSI uses less popular protocols than TCP/IP

**31. The OSI model defines Token Ring technology in which standard**

- a) IEEE 802.3
- b) IEEE 802.5
- c) IEEE 802.1
- d) IEEE 803.3

**32. ARP assigns the physical address to logical address**

- a) true
- b) false

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**33. Which layer of the OSI model does ARP operate on**

- a) Network layer
- b) Transport layer
- c) Data Link layer
- d) Application layer

**34. What is stored in an ARP cache**

- a) Logical-to-physical address mappings
- b) IP-to-hostname mappings
- c) Port-to-IP mappings
- d) Physical-to-logical topology

**35. What is the primary risk associated with ARP**

- a) Packet loss
- b) High latency
- c) ARP poisoning
- d) Excessive broadcasts

**36. ICMP is primarily used for**

- a) Sending data packets
- b) Handling control and error messages
- c) Establishing connections
- d) Managing encryption

**37. What is the typical size of a UDP header**

- a) 4 bytes
- b) 8 bytes
- c) 16 bytes
- d) 20 bytes

**38. Which of the following uses connectionless communication**

- a) TCP
- b) FTP
- c) UDP
- d) HTTP

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**39. What type of protocol is HDLC**

- a) Connectionless
- b) Bit-oriented
- c) Byte-oriented
- d) Stateless

**40. In HTTP, which status code indicates success**

- a) 100
- b) 200
- c) 404
- d) 500

**41. Which protocol is simpler but less capable than FTP**

- a) TFTP
- b) SMTP
- c) IMAP
- d) POP3

**42. DHCP works in four phases. What does the "A" in DORA stand for**

- a) Allocate
- b) Assign
- c) Acknowledge
- d) Authorize

**43. What is the primary purpose of SNMP**

- a) File sharing
- b) IP address allocation
- c) Network management
- d) VPN tunneling

**44. ATM uses packets of**

- a) Fixed size
- b) Variable size
- c) Segmented data
- d) Single datagrams

**45. Which protocol is primarily used for email retrieval and allows users to manage messages directly on the server**

- a) SMTP
- b) POP3
- c) IMAP
- d) HTTP

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**46. In the TCP/IP model, which layer ensures error recovery**

- a) Internet layer
- b) Transport layer
- c) Network interface layer
- d) Application layer

**47. Which of the following is NOT a function of the TCP protocol**

- a) Breaking data into packets
- b) Ensuring delivery of packets
- c) Assigning IP addresses
- d) Reassembling packets at the destination

**48. Which protocol in the TCP/IP suite is used for resolving domain names to IP addresses**

- a) DHCP
- b) DNS
- c) ICMP
- d) ARP

**49. TCP/IP follows which communication model**

- a) Peer-to-peer
- b) Client-server
- c) Stateless
- d) Stateful

**50. Which Ethernet frame type is the most commonly used**

- a) IEEE 802.3
- b) IEEE 802.5
- c) Token Ring
- d) ARCNET

**51. What is the primary purpose of CSMA/CD in Ethernet networks**

- a) Avoid collisions
- b) Establish connections
- c) Detect unauthorized access
- d) Manage routing tables

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## 52. What happens after a collision is detected in a CSMA/CD network

- a) Data is dropped, and transmission stops
- b) Hosts wait a short time and retransmit data
- c) The network shuts down temporarily
- d) Data is routed through alternate paths

## 53. How many layers does the OSI model have compared to the TCP/IP model

- a) 3 more layers
- b) 1 fewer layer
- c) 4 fewer layers
- d) Same number of layers

## 54. Which OSI layer corresponds to the application layer in the TCP/IP model

- a) Network layer
- b) Presentation and session layers
- c) Transport layer
- d) Data link layer

## 55. Which of the following access methods is used in Ethernet according to the TCP/IP model

- a) Token passing
- b) CSMA/CD
- c) FDDI
- d) X.25

## 56. Which of the following is NOT a function of DHCP

- a) Assigning IP addresses
- b) Managing DNS settings
- c) Ensuring packet delivery
- d) Configuring subnet masks

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### 57. What is the primary purpose of PPTP

- a) Assigning IP addresses
- b) Managing network resources
- c) Creating VPN tunnels
- d) Transferring files

### 58. Which protocol is often used by older network-connected printers

- a) SNMP
- b) DLC
- c) HTTP
- d) X.25

### 59. Which protocol splits data into fixed-size packets to ensure consistent transmission

- a) TCP
- b) ATM
- c) UDP
- d) TFTP

### 60. What does the "S" in HTTPS stand for

- a) Security
- b) Simple
- c) Stateless
- d) Service

### 61. X.25 protocols are typically used for

- a) Local Area Networks
- b) High-speed fiber networks
- c) Wide Area Networks (WANs)
- d) Virtual Private Networks

فَأَمَّا الزَّبْدُ فِيذَهُبُ جُفَاءً طَوَّأَمَا مَا يَنْفَعُ النَّاسَ فَيَمْكُثُ  
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