

## **COMPUTER NETWORK:**

**Introductory Concepts: Goals and applications of networks, Categories of networks, Organization of the Internet, ISP, Network structure and architecture (layering principles, services, protocols and standards), The OSI reference model, TCP/IP protocol suite, Network devices and components**

1. What is the primary goal of computer networks?
  - a) Data storage
  - b) Resource sharing
  - c) Entertainment
  - d) Gaming
2. Which of the following is not a category of computer networks?
  - a) LAN
  - b) WAN
  - c) PAN
  - d) CPU
3. Which organization developed the concept of the Internet?
  - a) IBM
  - b) Microsoft
  - c) DARPA
  - d) Apple
4. What does ISP stand for?
  - a) Internet Service Provider
  - b) International Standards Protocol
  - c) Internal Security Protocol
  - d) Internet Support Platform
5. Which of the following is not a layer in the OSI reference model?
  - a) Application
  - b) Data Link
  - c) Hardware
  - d) Transport
6. Which layer of the OSI model is responsible for end-to-end communication between applications?
  - a) Physical
  - b) Transport
  - c) Network
  - d) Session
7. Which protocol suite is the basis for the Internet?
  - a) OSI
  - b) TCP/IP
  - c) HTTP/HTTPS

d) DNS

8. What is the purpose of a router in a network?

- a) To connect devices within a LAN
- b) To connect devices within a WAN
- c) To connect different networks
- d) To connect devices within a PAN

9. Which network component is used to connect multiple devices within a LAN?

- a) Hub
- b) Switch
- c) Router
- d) Modem

10. Which device is responsible for translating domain names into IP addresses?

- a) Router
- b) Modem
- c) DNS Server
- d) Firewall

11. Which layer of the OSI model deals with data compression and encryption?

- a) Presentation
- b) Session
- c) Transport
- d) Network

12. What is the function of the Data Link layer in the OSI model?

- a) Ensuring end-to-end communication
- b) Error detection and correction
- c) Logical addressing
- d) Routing packets between networks

13. Which of the following is an example of a wide-area network (WAN)?

- a) Home Wi-Fi network
- b) Corporate LAN
- c) Internet
- d) Bluetooth connection

14. Which network category typically covers a small geographical area, like a single building or campus?

- a) LAN
- b) MAN
- c) WAN
- d) PAN

15. What does TCP stand for?

- a) Transmission Control Protocol
- b) Technical Computer Protocol

- c) Total Control Protocol
- d) Transmission Connection Protocol

16. What is the primary function of the Transport layer in the OSI model?

- a) Logical addressing
- b) Data link control
- c) Error detection and correction
- d) End-to-end communication

17. Which layer of the OSI model is responsible for routing packets between different networks?

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

18. Which protocol is commonly used for sending and receiving emails?

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

19. What is the role of a firewall in network security?

- a) Filtering and blocking network traffic
- b) Routing packets between networks
- c) Translating domain names into IP addresses
- d) Ensuring end-to-end communication

20. Which network category typically covers a large geographical area, like a country or continent?

- a) LAN
- b) MAN
- c) WAN
- d) PAN

21. What does LAN stand for?

- a) Local Area Network
- b) Large Area Network
- c) Long Area Network
- d) Logical Area Network

22. Which device connects a LAN to a WAN, typically provided by an ISP?

- a) Modem
- b) Switch
- c) Router
- d) Hub

23. Which protocol is used for secure communication over the World Wide Web?

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

24. What is the purpose of a DNS server?

- a) To filter network traffic
- b) To translate domain names into IP addresses
- c) To connect devices within a LAN
- d) To encrypt data transmission

25. Which OSI model layer is responsible for establishing, maintaining, and terminating connections between devices?

- a) Data Link
- b) Transport
- c) Session
- d) Presentation

26. Which network category typically covers a personal area, like a room or small area?

- a) LAN
- b) MAN
- c) WAN
- d) PAN

27. What is the role of a gateway in a network?

- a) To connect multiple LANs
- b) To connect multiple WANs
- c) To connect a LAN to the Internet
- d) To connect a LAN to a MAN

28. Which protocol is used for file transfer over a network?

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

29. What is the primary purpose of the Network layer in the OSI model?

- a) End-to-end communication
- b) Error detection and correction
- c) Logical addressing
- d) Data link control

30. Which of the following is an example of a network topology?

- a) Operating system
- b) Protocol
- c) Bus
- d) Hard drive

31. What does WAN stand for?
- a) Wide Area Network
  - b) Wireless Area Network
  - c) Web Area Network
  - d) Wired Area Network
32. What is the primary function of the Physical Layer in the OSI model?
- a) Routing
  - b) Data encapsulation
  - c) Signal transmission
  - d) Error correction
33. Which protocol is used for web browsing?
- a) HTTP
  - b) HTTPS
  - c) FTP
  - d) SMTP
34. Which OSI layer is responsible for data encryption and decryption?
- a) Data Link
  - b) Presentation
  - c) Transport
  - d) Network
35. What is the primary function of the Presentation layer in the OSI model?
- a) Logical addressing
  - b) Data link control
  - c) Data encryption and decryption
  - d) Error detection and correction
36. What does POP3 stand for?
- a) Post Office Protocol 3
  - b) Point of Presence Protocol 3
  - c) Public Operating Protocol 3
  - d) Protocol for Online Payments 3
37. Which network category typically covers a metropolitan area, like a city?
- a) LAN
  - b) MAN
  - c) WAN
  - d) PAN
38. Which layer of the OSI model deals with network topology design?
- a) Physical Layer
  - b) Data Link Layer
  - c) Network Layer
  - d) Transport Layer

names into IP addresses

39. Which protocol is used for sending and receiving emails?

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

40. What is the primary goal of network layer routing protocols?

- a) End-to-end communication
- b) Logical addressing
- c) Data link control
- d) Error detection and correction

41. What does OSI stand for in the context of networking?

- a) Open System Interconnect
- b) Operating System Interface
- c) Online Security Infrastructure
- d) Object Storage Interface

Answers:

1. b) Resource sharing
2. d) CPU
3. c) DARPA
4. a) Internet Service Provider
5. c) Hardware
6. b) Transport
7. b) TCP/IP
8. c) To connect different networks
9. b) Switch
10. c) DNS Server
11. a) Presentation
12. b) Error detection and correction
13. c) Internet
14. a) LAN
15. a) Transmission Control Protocol
16. d) End-to-end communication
17. b) Network
18. c) SMTP
19. a) Filtering and blocking network traffic
20. c) WAN
21. a) Local Area Network
22. c) Router
23. b) HTTPS
24. b) To translate domain names into IP addresses
25. c) Session
26. d) PAN
27. c) To connect a LAN to the Internet
28. b) FTP
29. c) Logical Addressing
30. c) Bus
31. a) Wide Area Network
32. c) Signal transmission
33. a) HTTP
34. b) Presentation
35. c) Data encryption and decryption
36. a) Post Office Protocol 3
37. b) MAN
38. a) Physical Layer
39. c) SMTP
40. b) Logical addressing
41. a) Open System Interconnect