

Unit-V

1. The Application Layer is the _____ layer of the OSI model.

- A) First
- B) Third
- C) Fifth
- D) Seventh

Answer: D) Seventh

2. The Application Layer provides services directly to:

- A) Network devices
- B) End users and applications
- C) Routers only
- D) Switches only

Answer: B) End users and applications

3. Which of the following is an Application Layer protocol?

- A) TCP
- B) IP
- C) FTP
- D) ARP

Answer: C) FTP

4. A network application architecture can be:

- A) Client-Server
- B) Peer-to-Peer
- C) Hybrid
- D) All of the above

Answer: D) All of the above

5. In a client-server architecture, the client:

- A) Provides services
- B) Requests services
- C) Routes packets
- D) Controls the network

Answer: B) Requests services

6. A process is:

- A) A running program
- B) A network cable
- C) A router table
- D) An IP address

Answer: A) A running program

7. Communication between application processes uses:

- A) Ports
- B) MAC Addresses
- C) Frames
- D) Switches

Answer: A) Ports

8. Which transport protocol provides reliable service?

- A) UDP
- B) ICMP
- C) TCP
- D) ARP

Answer: C) TCP

9. Which transport protocol is connectionless?

- A) TCP
- B) UDP
- C) FTP
- D) HTTP

Answer: B) UDP

10. FTP stands for:

- A) File Transfer Protocol
- B) Fast Transfer Process
- C) File Transmission Program
- D) Fast Transmission Protocol

Answer: A) File Transfer Protocol

11. FTP is mainly used for:

- A) Sending emails
- B) File transfer between hosts
- C) Web browsing
- D) DNS lookup

Answer: B) File transfer between hosts

12. FTP generally uses:

- A) One connection
- B) Two connections
- C) Three connections
- D) Four connections

Answer: B) Two connections

13. The FTP control connection usually uses port:

- A) 20
- B) 21
- C) 25
- D) 53

Answer: B) 21

14. The FTP data connection generally uses port:

- A) 20
- B) 21
- C) 25
- D) 53

Answer: A) 20

15. SMTP stands for:

- A) Simple Mail Transfer Protocol
- B) Standard Mail Transfer Protocol
- C) Secure Mail Transfer Protocol
- D) System Mail Transfer Protocol

Answer: A) Simple Mail Transfer Protocol

16. SMTP is used for:

- A) File Transfer
- B) Sending E-mails
- C) Web Browsing
- D) Name Resolution

Answer: B) Sending E-mails

17. SMTP typically uses port:

- A) 20
- B) 21
- C) 25
- D) 53

Answer: C) 25

18. HTTP is mainly used for:

- A) Email transfer
- B) File transfer
- C) Web page transfer
- D) Routing

Answer: C) Web page transfer

19. Which protocol is pull-oriented?

- A) SMTP
- B) HTTP
- C) ICMP
- D) ARP

Answer: B) HTTP

20. Which protocol is push-oriented?

- A) HTTP
- B) SMTP
- C) DNS
- D) FTP

Answer: B) SMTP

21. DNS stands for:

- A) Domain Name Service
- B) Domain Network Service
- C) Domain Name System
- D) Data Name System

Answer: C) Domain Name System

22. DNS translates:

- A) MAC addresses to IP addresses
- B) Domain names to IP addresses
- C) Port numbers to IP addresses
- D) Frames to packets

Answer: B) Domain names to IP addresses

23. DNS is often called:

- A) Internet Router
- B) Internet Directory Service
- C) Internet Gateway
- D) Internet Switch

Answer: B) Internet Directory Service

24. DNS commonly uses port:

- A) 20
- B) 25
- C) 53
- D) 80

Answer: C) 53

25. Which DNS record maps a hostname to an IPv4 address?

- A) MX
- B) NS
- C) CNAME
- D) A

Answer: D) A

26. Which DNS record specifies a mail server?

- A) MX
- B) A
- C) PTR
- D) TXT

Answer: A) MX

27. Which protocol is used for web browsing?

- A) FTP
- B) SMTP
- C) HTTP
- D) DNS

Answer: C) HTTP

28. Which transport protocol is commonly used by HTTP?

- A) UDP
- B) TCP
- C) ICMP
- D) ARP

Answer: B) TCP

29. DNS follows a:

- A) Distributed database structure
- B) Centralized structure only
- C) Bus structure
- D) Ring structure

Answer: A) Distributed database structure

30. Which Application Layer protocol resolves domain names?

- A) FTP
- B) SMTP
- C) DNS
- D) HTTP

Answer: C) DNS

Fill in the Blanks

1. The Application Layer is the _____ layer of the OSI model.
Answer: Seventh
2. A _____ architecture consists of clients and servers.
Answer: Client-Server
3. A running program is called a _____.
Answer: Process
4. Application processes communicate through _____.
Answer: Sockets
5. TCP provides reliable data _____.
Answer: Transfer
6. UDP provides a _____ service.
Answer: Connectionless
7. FTP stands for File Transfer _____.
Answer: Protocol
8. FTP is used to transfer _____ between computers.
Answer: Files
9. FTP uses separate control and _____ connections.
Answer: Data
10. FTP control connection typically uses port _____.
Answer: 21
11. FTP data connection typically uses port _____.
Answer: 20
12. SMTP stands for Simple Mail Transfer _____.
Answer: Protocol
13. SMTP is used to send _____ messages.
Answer: Email
14. SMTP commonly uses port _____.
Answer: 25
15. HTTP stands for HyperText Transfer _____.
Answer: Protocol
16. HTTP is mainly used for _____ browsing.
Answer: Web
17. DNS stands for Domain Name _____.
Answer: System
18. DNS translates domain names into _____ addresses.
Answer: IP
19. DNS is known as the Internet's _____ service.
Answer: Directory
20. DNS commonly uses port _____.
Answer: 53
21. The DNS _____ record maps a hostname to an IPv4 address.
Answer: A

22. The DNS _____ record identifies a mail server.
Answer: MX
23. DNS uses a distributed _____ structure.
Answer: Database
24. SMTP is a _____-oriented protocol.
Answer: Push
25. HTTP is a _____-oriented protocol.
Answer: Pull
26. Web browsers commonly use the _____ protocol.
Answer: HTTP
27. FTP operates at the _____ layer.
Answer: Application
28. DNS servers store DNS _____.
Answer: Records
29. A domain name is easier to remember than an _____ address.
Answer: IP
30. Network applications use transport layer _____.
Answer: Services
31. DNS queries and replies are carried in DNS _____.
Answer: Messages
32. The Internet uses DNS to locate _____.
Answer: Hosts
33. SMTP is used for electronic _____.
Answer: Mail
34. Client-server and peer-to-peer are examples of network application _____.
Answer: Architectures
35. The Application Layer provides services directly to the _____.
Answer: User