# OSI Model Layers and Functions

Computer Networking · Answer Key · 30 Questions

### 1. What is the top layer of the OSI model?

A) Physical Layer
B) Session Layer
**C) Application Layer**
D) Transport Layer

### 2. Which layer is responsible for end-to-end connections and reliability?

A) Network Layer
**B) Transport Layer**
C) Session Layer
D) Data Link Layer

### 3. What data unit is used at the Network Layer?

A) Segment
B) Datagram
**C) Packet**
D) Frame

### 4. The Presentation Layer is responsible for what?

A) Session establishment
**B) Recognizing data**
C) Media transmission
D) Logical addressing

### 5. Which layer deals with physical addressing (MAC)?

A) Network Layer
B) Transport Layer
**C) Data Link Layer**
D) Physical Layer

### 6. What is an example protocol for the Application Layer?

A) TCP
**B) HTTP**
C) IP
D) Ethernet

**7. Which layer handles media, signals, and binary transmission?**

A) Data Link Layer
**B) Physical Layer**
C) Network Layer
D) Transport Layer

**8. What is the primary function of the Session Layer?**

A) Data recognition
B) End-to-end connectivity
**C) Session establishment and termination**
D) Logical addressing

**9. What data unit is associated with the Transport Layer (TCP)?**

A) Packet
B) Datagram
**C) Segment**
D) Frame

**10. Which layer is responsible for logical addressing (IP) and path determination?**

A) Data Link Layer
**B) Network Layer**
C) Transport Layer
D) Session Layer

**11. An example protocol for the Presentation Layer is:**

A) DNS
**B) HTML**
C) UDP
D) RS-232

**12. What is the data unit at the Data Link Layer?**

A) Packet
**B) Frame**
C) Segment
D) Bits

**13. Which layer is concerned with network process to application?**

A) Presentation Layer
**B) Application Layer**
C) Session Layer
D) Transport Layer

**14. What does the Physical Layer transmit?**

A) Packets
B) Frames
C) Segments
**D) Bits**

**15. Which layer is responsible for data formatting and encryption?**

A) Application Layer
B) Session Layer
**C) Presentation Layer**
D) Transport Layer

**16. What is an example protocol for the Data Link Layer?**

A) IPv4
**B) 802.3 Ethernet**
C) TCP
D) TLS

**17. Which layer ensures reliable data transfer between hosts?**

A) Network Layer
B) Session Layer
**C) Transport Layer**
D) Application Layer

**18. What is the main purpose of the Network Layer?**

A) Media transmission
**B) Logical addressing and routing**
C) Session management
D) Data encryption

**19. Which layer is closest to the end-user?**

A) Physical Layer
B) Data Link Layer
**C) Application Layer**
D) Transport Layer

**20. What is an example protocol for the Transport Layer?**

A) HTTP
B) HTML
**C) TCP**
D) IP

**21. The OSI model has how many layers?**

A) 5
B) 6
**C) 7**
D) 8

**22. Which layer is responsible for establishing, managing, and terminating connections?**

A) Network Layer
B) Transport Layer
**C) Session Layer**
D) Presentation Layer

**23. What is an example protocol for the Network Layer?**

A) 802.11 Wireless
**B) ICMP**
C) TLS
D) SSH

**24. Which layer deals with the physical transmission of data over a medium?**

A) Data Link Layer
B) Network Layer
C) Transport Layer
**D) Physical Layer**

**25. What is the data unit at the UDP protocol?**

A) Segment
**B) Datagram**
C) Packet
D) Frame

**26. Which layer is responsible for translating data between the application and the network format?**

A) Session Layer
**B) Presentation Layer**
C) Transport Layer
D) Network Layer

**27. What is an example protocol for the Physical Layer?**

A) 802.3 Ethernet
**B) DSL**
C) HTTP
D) UDP

**28. Which layer handles the flow control and error correction between adjacent nodes?**

A) Network Layer
B) Transport Layer
**C) Data Link Layer**
D) Physical Layer

**29. What does 'IP' stand for in the context of logical addressing?**

**A) Internet Protocol**
B) Internal Protocol
C) Information Protocol
D) Interface Protocol

**30. Which layer provides services to the application layer and is closest to the user?**

A) Presentation Layer
B) Session Layer
C) Transport Layer
**D) Application Layer**