

# OSI Model Layers and Functions

Computer Networking · Practice Test · 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