

SNS COLLEGE OF TECHNOLOGY



Coimbatore-37. An Autonomous Institution

COURSE CODE & NAME : 23CSB302 & COMPUTER NETWORKS

Topic: Protocols and Standards

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• Open Systems Interconnection – 7 Layers















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OSI model				
Layer	Name	Example protocols		
7	Application Layer	HTTP, FTP, DNS, SNMP, Telnet		
6	Presentation Layer	SSL, TLS		
5	Session Layer	NetBIOS, PPTP		
4	Transport Layer	TCP, UDP		
3	Network Layer	IP, ARP, ICMP, IPSec		
2	Data Link Layer	PPP, ATM, Ethernet		
1	Physical Layer	Ethernet, USB, Bluetooth, IEEE802.11		





7 Layers of the OSI Model

Application	 End User layer HTTP, FTP, IRC, SSH, DNS 	
Presentation	 Syntax layer SSL, SSH, IMAP, FTP, MPEG, JPEG 	
Session	 Synch & send to port API's, Sockets, WinSock 	
Transport	 End-to-end connections TCP, UDP 	
Network	 Packets IP, ICMP, IPSec, IGMP 	
Data Link	 Frames Ethernet, PPP, Switch, Bridge 	
Physical	 Physical structure Coax, Fiber, Wireless, Hubs, Repeaters 	





07	Application Layer	Provide user interface where applications can access the network services.
06	Presentation Layer	Ensure that Data is in usable format and perform encryption & decryption.
05	Session Layer	Maintains connection between two host & responsible for controlling ports and sessions.
04	Transport Layer	Transmits data using transmission protocols including TCP & UDP.
03	Network Layer	Moves packets from source to destination to provide internetworking.
02	Data Link Layer	Responsible for the error-free transfer of data frames.
01	Physical Layer	Provides physical medium through which bits are transmitted.

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ERS →	7	Application Layer ✓ Message format, Human-Machine Interfaces
JPPER LAYERS	6	Presentation Layer ✓ Coding into 1s and 0s; encryption, compression
AU	5	Session Layer Authentication, permissions, session restoration
ך א	4	Transport Layer ✓ End-to-end error control
FRANSPORT SERVICE	3	Network Layer ✓ Network addressing; routing or switching
ANSPOR	2	Data Link Layer ✓ Error detection, flow control on physical link
+ TR	1	Physical Layer ✓ Bit stream: physical medium, method of representing bits







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