

Topic	What I should know
Address Space	Notations of IPv4 Address
IP Addresses(Classful and Classless Addressing)	Classfull Addresses and Classless Addressing /CIDR Notations/ Special Address/Public and Private Addresses/APIPA Address/Analysis of Class A,B and C
DHCP	DHCP leasing process
NAT	NAT Translation: need and process
Packet Switching	General role of Router
Network Layer Services	
IP Packet	Features,IP Packet Format, Packet delivery scheme.
Subnetting	Information extraction in classless Addressing
IPv6	definition
DNS	definition , DNS Lookup, URL Format
ARP	How it works?
Transport Layer Services	
TCP	Port numbers/ Sockets Number/ Segment Format/ Sequence Number/3-way handshaking/
UDP	Comparison of TCP and UDP/ Application of UDP
Concept of client-server communication.	Definition and important features
Peer-to-peer paradigm.	Definition and important features
Concept of Socket and socket programming.	Socket APIs , Connection of client -server
Overview of application layer protocols.	
WWW	Types of web pages
HTTP	HTTP request and reply format/ persistrent and non persistent connection
FTP	Conrol and Data connection
WLAN	
Architectural Comparison (Wired and Wireless).	Explain
Basic WLAN components.	Isolated and Adhoc LAN, AP
Characteristics of Wireless LAN.	Explain
WLAN network infrastructure	BSS and ESS
Email architecture	
SMTP: Simple Mail Transfer Protocol	port number, how it works
POP3: Post Office Protocol	port number, how it works purpose of the protocol
IMAP 4: Internet Message Access Protocol	port number , how it works and purpose of the protocol
MIME: Multipurpose Internet Mail Extensions	purpose of the protocol