38) You need to subnet a network that has 7 subnets, each with at least 16 hosts. Which classful subnet mask would you use?
a) 255.255.255.192
b) 255.255.255.224
c) 255.255.255.240
d) 255.255.255.252

42) Which of the following affirmations about UDP is not true?
a) Writes packets of bytes
b) No read bytes from a packet are lost
c) Neither party can overflow the other. Traffic is controlled by the OS
d) Not read bytes from a packet are lost

43) Which one is not a principle to the OSI model?
a) A layer should be created where a different abstraction is needed
b) Each layer should perform a well-defined function
c) The layer boundaries should be chosen to maximize the information flow across the interfaces
d) The function of each layer should be chosen with an eye toward defining internationally standardized protocols

44) Which of the following layers controls the operation of a subnet and handles how packets are routed from source to destination?
a) The Network Layer
b) The Transport Layer
c) The Session Layer
d) The Presentation Layer

46) Which one of the following is a Natural Mask?
a) 255.255.255.255
b) 255.255.255.0
c) 255.255.255.128
d) 255.255.255.64

48) Which affirmation is not true about The Network Address Translation?
a) No need to be allocated range of addresses from ISP; just one IP address is used for all devices
b) Can change addresses of devices in local network without notifying outside world
c) Can change ISP only by changing addresses of devices in local network
d) Devices inside local net not explicitly addressable, visible by outside world

51) Which is not a Service of a Data Link Layer?
a) Framing and link access
b) Flow control
c) Error correction
d) Traffic isolation

54) TCP stands for…
a) Transfer Control Protocol
b) Transmission Connection Protocol
c) Transformation Central Protocol
d) Transmission Control Protocol

57) TCP, UDP and SCTP are part of:
a) Application Layer
b) Internet Layer
c) Transport Layer
d) Link Layer

61) What is DSL and what it is used for?
a) Digital Subscriber Line; used to give access to internet through telephone lines
b) Digital Supplier Limit; verifies if the maximum connected users in a wi-fi network have been reached
c) Describer Serial Link; used for serial cables to assure their connectivity in a network
d) Destination Source Limit; limits the number of packets sent and received; used for security reasons

65) Which of the following is correct regarding Class B address of IP address?
a) Network 18, Host 16
b) Network 14, Host 16
c) Network 16, Host 14
d) Network 12, Host 14

68) DNS is the abbreviation for:
a) Dynamic Network System
b) Domain Name System
c) Domain Network Server
d) Dynamic Name System

70) MAC address is the example of?
a) Transport layer
b) Data link layer
c) Application layer
d) Physical layer

80) The following system calls are/is optional at the level of a TCP client:
a) Socket()
b) Listen()
c) Bind()
d) Connect()

83) DHCP is a client/server protocol that automatically provides an Internet Protocol host with its:

a) IP address

b) Subnet Mask

c) MAC address

d) Default gateway

91) How many bytes does 'double' use?

a) 1 byte

b) 4 bytes

c) 8 bytes

d) 16 bytes

92) How many bytes does 'float' use?

a) 1 byte

b) 4 bytes

c) 8 bytes

d) 16 bytes

125) Which of the following is a valid IP/Netmask combination?

a) 209.220.186.8/255.255.255.240

b) 209.220.186.8/255.255.255.0

c) 209.220.186.8/255.255.255.248

d) 209.220.186.8/255.255.255.252

e) C and D are both correct

128) What is the netmask for the following IP class: 192.168.0.0/24?

a) 255.255.255.128

b) 255.255.255.0

c) 255.255.0.0

d) 255.0.0.0

e) All netmasks are correct

141) What is a broadcast MAC address?

a) It's a logical address which identifies only one recipient

b) It's a logical address which is used to identify all the computers within a network

c) It's a logical identifier for a group of hosts in a computer network that are available to process datagrams

142) In how many subclasses with the netmask 255.192.0.0 can be the class of minimal dimension containing both IP addresses: 78.79.80.81 and 79.80.81.82 be divided?

a) 7

b) 10

c) 8

d) 9

143) Which are the layers of the TCP/IP model?
a) Application layer, transport layer, session layer, network access layer
b) Application layer, transport layer, internet layer, network access layer
c) Application layer, presentation layer, session layer, transport layer, network layer, data-link layer, physical layer
d) Application layer, internet layer

144) Which of the following does not describe a socket?
a) An internal endpoint for sending or receiving data at a single node in a computer
b) A door between the application process and end-to-end transport protocol
c) A process that sends and receives data at a single node in a computer

149) What does a routing table contain?
a) Source address, destination address, gateway, interface
b) Interface, netmask, destination address, gateway
c) Source address, destination address, netmask, gateway

150) What is Throughput?
a) Quantity of data which we send at some point through a transmission channel
b) Quantity of data over quantity of time which we send at a given time through a transmission channel
c) The capacity of data transportation that we send through a transmission channel

151) What does traceroute?
a) Shows all IPs of the routers parsed until the current IP
b) Shows all IP's parsed until the current router IP
c) Shows the IP route of the last 5 parsed

152) What is a congestion window?
a) A sender impose window implemented to avoid overrunning some routers in the middle of the network path
b) A window managed by the receiver that grows when each segment is sent
c) A window that controls flow moving of the sender

163) The networks can be classified on the types of transmission as ... switching and … switching. (R: circuit, packet)

168) What function call you don't find in an UDP server?
a) Recvfrom
b) Bind
c) Sendto
d) Accept

171) Which of the following is NOT a valid IP netmask combination?
a) 168.220.186.8/255.255.225.252
b) 156.198.186.8/255.255.255.254
c) 209.198.186.8/255.255.255.246
d) 168.220.186.64/255.255.255.240

173) Which of the following is NOT a valid IP netmask combination?
a) 168.220.186.8/225.255.225.252
b) 156.198.186.16/255.255.255.254
c) 209.198.186.8/255.255.255.248
d) 168.220.186.8/255.255.255.240

176) Which of the following functions does UDP perform?
a) Process to process communication
b) Improve the data transfer rate of large files (compared to TCP)
c) Assure that the sent messages arrive in the order that have been sent
d) Protect the data sent against any corruption while transferring it

179) The data link layer takes packets from … and encapsulates them into frames for transmission. a) Network layer
b) Physical layer
c) Transport layer
d) Application layer

180) FTP uses the following channels:
a) The delta channel b) The control channel
c) The bearer channel d) The data channel

181) Which IP address class can have 64000 subnets with 64000 hosts/subnet?
a) Class A
b) Class B
c) Class C
d) Class D