

IP ADDRESS CLASSIFICATION (TASK 1)

1 A

2 B

3 C

4 B

5 C

6 A

7 C

8 D

9 B

10 A

11 E

12 C

13 A

14 C

15 C

16 A

17 A

18 B

19 C

NETWORK AND HOST IDENTIFICATION (TASK 2)

Network & Host Identification

Circle the network portion
of these addresses:

177.100.18.4

119.18.45.0

209.240.80.78

199.155.77.56

117.89.56.45

215.45.45.0

192.200.15.0

95.0.21.90

33.0.0.0

158.98.80.0

217.21.56.0

10.250.1.1

150.10.15.0

192.14.2.0

148.17.9.1

193.42.1.1

126.8.156.0

220.200.23.1

Circle the host portion of
these addresses:

10.15.123.50

171.2.199.31

198.125.87.177

223.250.200.222

17.45.222.45

126.201.54.231

191.41.35.112

155.25.169.227

192.15.155.2

123.102.45.254

148.17.9.155

100.25.1.1

195.0.21.98

25.250.135.46

171.102.77.77

55.250.5.5

218.155.230.14

10.250.1.1

NETWORK ADDRESS

Network Addresses

Using the IP address and subnet mask shown write out the network address:

188.10.18.2 255.255.0.0	<u>188 . 10 . 0 . 0</u>
10.10.48.80 255.255.255.0	<u>10 . 10 . 48 . 0</u>
192.149.24.191 255.255.255.0	<u>192.149.24.0</u>
150.203.23.19 255.255.0.0	<u>150.203.0.0</u>
10.10.10.10 255.0.0.0	<u>10.0.0.0</u>
186.13.23.110 255.255.255.0	<u>186.13.23.0</u>
223.69.230.250 255.255.0.0	<u>223.69.0.0</u>
200.120.135.15 255.255.255.0	<u>200.120.135.0</u>

HOST ADDRESS

Using the IP address and subnet mask shown write out the host address:

188.10.18.2	<u>0 . 0 . 18 . 2</u>
255.255.0.0	

10.10.48.80	<u>0 . 0 . 0 . 80</u>
255.255.255.0	

222.49.49.11	<u>0.0.0.80</u>
255.255.255.0	

128.23.230.19	<u>0.0.230.19</u>
255.255.0.0	

10.10.10.10	<u>0.10.10.10</u>
255.0.0.0	

200.113.123.11	<u>0.0.0.11</u>
255.255.255.0	

223.169.23.20	<u>0.0.23.20</u>
255.255.0.0	

203.20.35.215	<u>0.0.0.215</u>
255.255.255.0	

DEFAULT SUBNET MASK

Default Subnet Masks

Write the correct default subnet mask for each of the following addresses:

177.100.18.4	<u>255 . 255 . 0 . 0</u>
119.18.45.0	<u>255 . 0 . 0 . 0</u>
191.249.234.191	<u>255.255.0.0</u>
223.23.223.109	<u>255.255.255.0</u>
10.10.250.1	<u>255.0.0.0</u>
126.123.23.1	<u>255.0.0.0</u>
223.69.230.250	<u>255.255.255.0</u>
192.12.35.105	<u>255.255.255.0</u>
77.251.200.51	<u>255.0.0.0</u>
189.210.50.1	<u>255.255.0.0</u>

WIRESHARK

Q.1 WHAT IS THE IP ADDRESS OF YOUR HOST? WHAT IS THE IP ADDRESS OF THE DESTINATION HOST?

Source: 172.16.11.121

Destination: 172.16.11.120

Q.2 WHY IS IT THAT AN ICMP PACKET DOES NOT HAVE SOURCE AND DESTINATION PORT NUMBERS?

The ICMP packet does not have source and destination port numbers because it communicates information between hosts and routers.

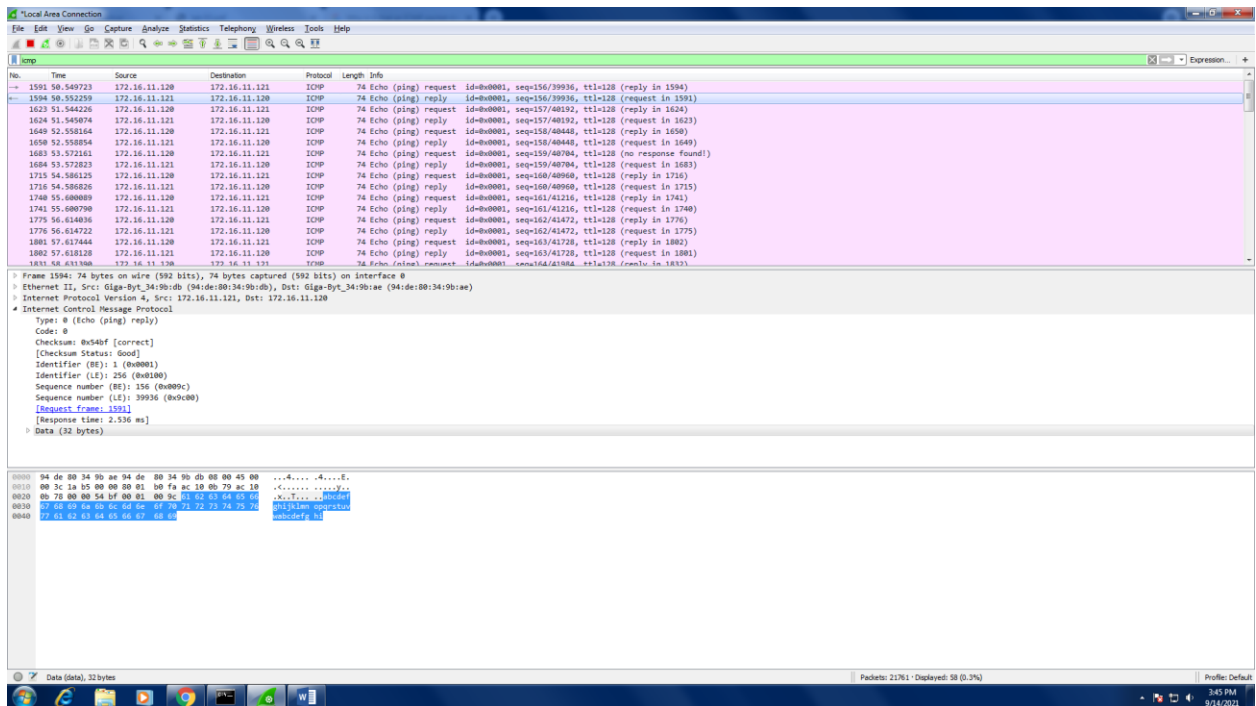
Q.3 EXAMINE ONE OF THE PING REQUEST PACKETS SENT BY YOUR HOST. WHAT ARE THE ICMP TYPE AND CODE NUMBERS? WHAT OTHER FIELDS DOES THIS ICMP PACKET HAVE? HOW MANY BYTES ARE THE CHECKSUM, SEQUENCE NUMBER AND IDENTIFIER FIELDS?

The screenshot shows a Wireshark capture of ICMP Echo (ping) packets. The packet list pane displays a series of ping requests and replies. The packet details pane for the selected packet (No. 1591) shows the following fields:

- Frame 1591: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface 0
- Ethernet II, Src: Giga-Byt_34:90:ae (94:de:00:34:90:ae), Dst: Giga-Byt_34:90:db (94:de:00:34:90:db)
- Internet Protocol Version 4, Src: 172.16.11.120, Dst: 172.16.11.121
- Internet Control Message Protocol
 - Type: 8 (Echo (ping) request)
 - Code: 0
 - Checksum: 0x0c0f [correct]
 - [Checksum Status: Good]
 - Identifier (ID): 1 (0x0001)
 - Identifier (ID): 256 (0x0100)
 - Sequence number (SEQ): 156 (0x009c)
 - Sequence number (SEQ): 39936 (0xc000)
 - [Response frame: 1594]
- Data (32 bytes)

The packet bytes pane shows the raw data of the packet in hexadecimal and ASCII format.

Q.4 EXAMINE THE CORRESPONDING PING REPLY PACKET. WHAT ARE THE ICMP TYPE AND CODE NUMBERS? WHAT OTHER FIELDS DOES THIS ICMP PACKET HAVE? HOW MANY BYTES ARE THE CHECKSUM, SEQUENCE NUMBER AND IDENTIFIER FIELDS?



Q.5 OPEN YOUR BROWSER AND GO TO WWW.GOOGLE.COM CAPTURE PACKETS ON WIRESHARK, ATTACH SCREENSHOTS IN SUBMISSION.

