**Chapter 2 Architectures and Standards**

**Exercise 2-1**

1. Header includes HTTP version, host name, client OS, and browser name

2. Answer varies

**Exercise 2-2**

1. Sample answer: www.sdsu.edu -> 130.191.8.198

http:// 130.191.8.198:80 is the same as http:// 130.191.8.198

1. Sample answer: http:// 130.191.8.198:70 results in search error as the server should use 80 as the default port to be accessed by public.

**Exercise 2-3**

2. 6 sessions
3. 6 sockets
4. 25573 ~ 25578
5. 1 socket
6. 80
7. www.sdsu.edu

**Exercise 2-4**

75.15.86.45, 75.15.87.254, 63.200.206.195: AT&T

151.164.94.4, 151.164.52.215, 151.164.248.58: RIPE Network Coordination Centre ([RIPE](http://whois.arin.net/rest/org/RIPE.html))

216.115.107.83, 209.131.32.17, 209.131.36.158: Yahoo!

**Exercise 2-5**

1. 4 (to laptop, to PC4, to Server 1, and to R3’s Fa0/1)
2. 4 (to Laptop1, to the second laptop, to Server 1, and to R3’s Fa0/1)
3. 3 data links
4. 3 data links (PC4 to Laptop1; PC4 to 2nd Laptop; PC4 to Router R3)
5. Source: 00-11-22-A4-B4-C4, Destination: 00-11-22-A1-B1-C1, The source and destination addresses remain the same.
6. Source: 00-11-22-A2-B2-C2, Destination: 00-11-22-A1-B1-C1, The source and destination addresses remain the same.

**Exercise 2-6**

1. 4 (to PC1, to the second PC, to the printer, and to the R1’s LAN port)

1. 4 (to IP Phone, to the second PC, to the printer, and to the R1’s LAN port)
2. 3 data links
3. 3 data links
4. 3 data links
5. 4 data links
6. Initial frame: Source: 33-44-55-A1-B1-C1, Destination: 33-44-55-A2-B2-C2

Last frame: Source: 00-11-22-A1-B1-C1, Destination: 33-44-55-A2-B2-C2

Yes, data link addresses change in each data link.

1. 3 frames
2. Source: 00-11-22-A1-B1-C1, Destination: 00-11-22-A4-B4-C4
3. 4 frames

**Exercise 2-7**

1. 3 LANs and 3 WAN connections
2. 6
3. 7
4. LAN and WAN links use different signaling methods.

**CHAPTER EXERCISE QUESTIONS**

1. B

2. E

3. A

4. B

5. C

1. D
2. B
3. C
4. A
5. C
6. E
7. D
8. E
9. B

15. B

16. C

17. B

18. D

19. C

20. D

21. A

22. C

23. E

24. D

25. C