

## 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
- 2) 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

1.
  - a) 6 sessions
  - b) 6 sockets
  - c) 25573 ~ 25578
  - d) 1 socket
  - e) 80
  - f) 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)  
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)
2. 4 (to IP Phone, to the second PC, to the printer, and to the R1's LAN port)
3. 3 data links

4. 3 data links
5. 3 data links
6. 4 data links
7. 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.
8. 3 frames
9. Source: 00-11-22-A1-B1-C1, Destination: 00-11-22-A4-B4-C4
10. 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
6. D
7. B
8. C
9. A
10. C
11. E
12. D
13. E
14. B
15. B
16. C
17. B
18. D
19. C
20. D
21. A
22. C
23. E
24. D
25. C