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## CHAPTER 15

### *Wireless LANs*

#### Review Questions

1. A BSS is the basic building block of an ad hoc wireless LAN. An ESS is two or more BSSs that have APs.
3. FHSS is a signal generation method in which the sender sends on one carrier frequency for a short amount of time, then hops to another carrier frequency for the same amount of time, hops again to still another for the same amount of time, and so on.
5. In OFDM all the subbands are used by one source at a given time.
7. The NAV is a value that shows the amount of time that must pass before a station can check for an idle medium.
9. A management frame is used for the initial communication between stations and access points. A control frame is used for accessing the channel and acknowledging frames.
11. A Bluetooth network is called a piconet. A scatternet is two or more piconets.
13. A Bluetooth master and slave can be connected by a synchronous connection-oriented link or a synchronous connectionless link.
15. They all use 259 microseconds for hopping.

#### Multiple-Choice Questions

17. b
19. d
21. c
23. a
25. b
27. a
29. d
31. a

- 33. b
- 35. a
- 37. b
- 39. a
- 41. a

**Exercises**

- 43. See Table 15.1

**Table 15.1** Exercise 43

<i>Types of Mobility</i>	<i>Movement inside BSS</i>	<i>Movement between BSSs</i>	<i>Movement between ESSs</i>
No transition	Yes	No	No
BSS transition	Yes	Yes	No
ESS transition	Yes	Yes	Yes

- 45. See Table 15.2.

**Table 15.2** Exercise 45

<i>Fields</i>	<i>802.3 field size (bytes)</i>	<i>802.11 field size (bytes)</i>
Destination Address	6	
Source Address	6	
Address 1		6
Address 2		6
Address 3		6
Address 4		6
FC		2
D/ID		2
SC		2
PDU Length	2	
Data and Padding	46 to 1500	
Frame Body	64-1518	0 to 2312
FCS (CRC)	4	4