Exam Report: 10.1.5 Practice Questions

Date: 11/5/2019 4:02:28 pm
Time Spent: 4:19

Candidate: Garsteck, Matthew
Login: mGarsteck

Overall Performance

Your Score: 60%

Passing Score: 80%

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Individual Responses

Question 1: Incorrect

An access point that conforms to the IEEE 802.11b standard behaves similarly to what other networking device?

- Gateway
- Terminal
- Hub
- Patch bay
- ~~Router~~

Explanation

An access point functions like a hub by connecting multiple wireless hosts to a wired Ethernet network.

References

LabSim for Network Pro, Section 10.1.
[netpro18v5_all_questions_en.exm NP05_1-6 #126]

Question 2: Correct

Match the wireless signaling method on the left with its definition on the right. (Not all of the signaling methods match a definition.)

Uses a narrow frequency band and hops data signals in a predictable sequence

FHSS

Breaks data into pieces and sends the pieces across multiple frequencies in a defined range.

DSSS

Breaks data into very small data streams in order to send the information across long distances.

OFDM

Explanation

The following table describes the most common signaling methods used by wireless networks.

Method	Description
Frequency Hopping Spread Spectrum	FHSS uses a narrow frequency band and

(FHSS)	hops data signals in a predictable sequence from frequency to frequency over a wide band of frequencies.
Direct-Sequence Spread Spectrum (DSSS)	DSSS uses a transmitter that breaks data into pieces and sends the pieces across multiple frequencies in a defined range. DSSS is more susceptible to interference and less secure then FHSS.
Orthogonal Frequency-Division Multiplexing (OFDM)	OFDM breaks data into very small data streams in order to send the information across long distances where environmental obstacles may be an issue.

References

LabSim for Network Pro, Section 10.1.
[netpro18v5_all_questions_en.exm *NP15_WIRELESS_CONCEPTS_01]

Question 3: Correct

Which of the following is true of a wireless network SSID?

- ○ Is used by STAs as they roam between APs.
- ○ Is a 48-bit value that identifies an AP.
- ➡ ◉ Groups wireless devices together into the same logical network.
- ○ Allows devices to find a specific AP within an ESS.

Explanation

The SSID, also called the network name, groups wireless devices together into the same logical network.

- All devices on the same network (within the BSS and ESS) must have the same SSID.
- The SSID is a 32-bit value that is inserted into each frame. The SSID is case sensitive.
- The SSID is sometimes called the ESSID (extended service set ID) or the BSSID (basic service set ID). In practice, each term means the same thing; however, SSIDs, ESSIDs, and BSSIDs are technically different.

References

LabSim for Network Pro, Section 10.1.
[netpro18v5_all_questions_en.exm *NP15_WIRELESS_CONCEPTS_02]

Question 4: Correct

Which wireless networking component is used to connect multiple APs together?

- ○ BSS
- ○ IBSS
- ○ STA
- ➡ ◉ DS

Explanation

The distribution system (DS) is the backbone or LAN that connects multiple APs (and BSSs) together. The DS allows wireless clients to communicate with the wired network and with wireless clients in other cells.

An IBSS is a set of STAs configured in ad hoc mode. A BSS, or cell, is the smallest unit of a wireless network. An STA is a wireless NIC in an end device such as a laptop or wireless PDA.

The term STA often refers to the device itself, not just the NIC.

References

LabSim for Network Pro, Section 10.1.
[netpro18v5_all_questions_en.exm *NP15_WIRELESS_CONCEPTS_03]

Question 5: Incorrect

All of the 802.11 standards for wireless networking support which type of communication path sharing technology?

- CSMA/CA
- ~~CSMA/CD~~
- Token passing
- Polling

Explanation

802.11x standards for wireless networking all support the CSMA/CA (carrier sense multiple access with collision avoidance) type of communication path sharing technology. This CSMA/CA allows multiple baseband clients to share the same communication medium. CSMA/CA works as follows:

1. The system asks for permission to transmit.
2. A designated authority (such as a hub, router, or access point), grants access when the communication medium is free.
3. The system transmits data and waits for an ACK (acknowledgment).
4. If no ACK is received, the data is retransmitted.

Polling is a mechanism where one system is labeled as the primary system. The primary system polls each secondary system in turn to inquire whether they have data to transmit. Token passing is a mechanism that uses a digital pass card. Only the system holding the token is allowed to communicate. CSMA/CD is the technology used by Ethernet. CSMA/CD works as follows:

1. The system listens for traffic. If the line is clear, the system begins transmitting.
2. During the transmission, the system listens for collisions.
3. If no collisions are detected, the communication succeeds. If collisions are detected, an interrupt jam signal is broadcast to stop all transmissions. Each system waits a random amount of time before starting over at step 1.

References

LabSim for Network Pro, Section 10.1.
[netpro18v5_all_questions_en.exm NP05_1-7 #39]