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Question 1 (5 points) *Saved*

Which one of the following statements is FALSE about Bluetooth?

- Bluetooth has been specifically designed for the short range, low cost, low power Personal Area Network (PAN) applications.
- In Bluetooth specification, a master device can connect up to maximum of 3 slaves to transfer voice.
- Bluetooth transceiver devices operate in the unlicensed 2.4 GHz Industrial, Scientific, and Medical (ISM) band.
- (●) A slow hopping frequency generator is required in the transmitter and the receiver of a Bluetooth system, to comply with the required rate of 1,600 hops per second.

Question 2 (5 points) *Saved*

In Bluetooth technology, master Bluetooth device always transmits at even slot and slave device always transmits at odd slot using TDD to avoid collision.

- (●) True
- False

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Question 3 (5 points) *Saved*

In Bluetooth specification, a master can support up to maximum of seven active slaves. Why?

- There is only 4 bits in the Packet Type field in the header.
- There is only 1 bit used in ARQN and SEQN fields in the header.
- There is only 8 bits in the HEC field in the header.
- (●) There is only 3 bits in the AM_ADDR field in the header.

Question 4 (5 points) *Saved*

In Bluetooth protocol stack, which layer is used to interface between the upper and lower layer?

- (●) HCI
- Baseband
- L2CAP
- LMP

Question 5 (5 points) *Saved*

Which one of the modulation techniques is used in Bluetooth version 2.0 to achieve a maximum bit rate of 3 Mbps?

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Question 5 (5 points) *Saved*

Which one of the modulation techniques is used in Bluetooth version 2.0 to achieve a maximum bit rate of 3 Mbps?

- BPSK
- QPSK
- (●) 8PSK
- G2FSK

Question 6 (5 points) *Saved*

Which one of the following is an operation performs by the Baseband layer?

- Baseband layer enables Bluetooth-enabled devices to detach from a piconet.
- Baseband layer enables Bluetooth-enabled devices to perform error correction.
- Baseband layer enables Bluetooth-enabled devices to join a piconet.
- (●) Baseband layer enables Bluetooth-enabled devices to inquire one another.

Question 7 (5 points) *Saved*

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Question 7 (5 points) *Saved*

Match the following terminology in Bluetooth Technology with its meaning.

2 Piconet

1 Scatternet

1. A combination of few networks where at least one Bluetooth device acts as master/slave or slave/slave in these networks.
2. A small network with one master and one or multiple slaves.

Question 8 (5 points) *Saved*

Which of the following technique(s) is/are used in Bluetooth to cope with the hostile environment in the ISM band?

- [x] Adaptive frequency hopping
- [x] Power control
- [ ] Class I device
- [ ] 5-slot packet

Question 9 (5 points) *Saved*

Which part of a master Bluetooth address is used to generate the access code of a Bluetooth packet for synchronisation?

- ○ AM_ADDR
- ◉ LAP
- ○ NAP

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Question 10 (5 points) *Saved*

Which one of the following is NOT an operation performs by the Link Manager Protocol (LMP)?

- ○ LMP enables Bluetooth-enabled devices to perform error correction.
- ○ LMP enables Bluetooth-enabled devices to join a piconet.
- ○ LMP enables Bluetooth-enabled devices to detach from a piconet.
- ◉ LMP enables Bluetooth-enabled devices to inquire one another.

Question 11 (5 points) *Saved*

Which feature is added in Bluetooth version 1.2 to improve compatibility with IEEE 802.11b/g?

- ○ CSMA/CA
- ◉ AFHSS
- ○ DSSS
- ○ OFDM

Question 12 (5 points) *Saved*

Why do we use FEC 1/3 encoding for the header portion of the Bluetooth packet?

- ○ This is to ensure that proper synchronization is achieved before decoding the payload.

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Question 12 (5 points) *Saved*

Why do we use FEC 1/3 encoding for the header portion of the Bluetooth packet?

- ○ This is to ensure that proper synchronization is achieved before decoding the payload.
- ◉ This is to ensure correct operation of the Link Controller of the piconet or scatternet.
- ○ This is to let every Bluetooth device to know that they belong to the same piconet or scatternet.
- ○ This is to ensure that the header occupies 54 bits.

Question 13 (5 points) *Saved*

What types of error detection and error correction are being used in header in Bluetooth packet?

- [ ] 2/3 FEC
- [ ] 16-bit HEC
- [x] 1/3 FEC
- [x] 8-bit HEC

Question 14 (5 points) *Saved*

If the total number of bytes **for data** in the payload is 18, how many bytes are needed for parity in 2/3 FEC?

- ○ 18
- ○ 6
- ◉ 9
- ○ 12

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Question 15 (5 points) Saved

How can a Bluetooth device becomes a master in a piconet?

- The Bluetooth device accepts the connection.
- The Bluetooth device votes to become the master of the piconet.
- The Bluetooth device with the highest Bluetooth address becomes the master of the piconet.
- (•) The Bluetooth device initiates the connection.

Question 16 (5 points) Saved

In a Bluetooth radio, power control is required

- to protect the transmitter become damage
- to produce maximum output power
- to make connection faster
- (•) to minimize interference

Question 17 (5 points) Saved

The maximum transmit power for a Class one Bluetooth radio is:

- 10 mW
- 2.5 mW
- (•) 20 dBm
- 100 dBm

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Question 18 (5 points) Saved

If the total number of bytes for data in the payload is 18, how many bytes are needed for CRC?

- 3
- (•) 2
- 1
- 4

Question 19 (5 points) Saved

What is the difference between the flow field in the packet header and the flow field in the payload header?

- The flow field in the packet header does not control the entire Bluetooth baseband link. The flow field in the payload header controls the data transfer for that particular L2CAP connection.
- (•) The flow field in the packet header controls the entire Bluetooth baseband link. The flow field in the payload header controls the data transfer for that particular L2CAP connection only.
- The flow field in the packet header controls the data transfer for that particular L2CAP connection. The flow field in the payload header controls the entire Bluetooth baseband link only
- The flow field in the packet header controls the entire Bluetooth baseband link. The flow field in the payload header does not control the data transfer for that particular L2CAP connection.

Question 20 (5 points) Saved

What is the use of ARQN bit in the Bluetooth packet header?

- (•) Acknowledge for received packets with or without errors
- Sequence number of the packet to indicate the new packet or retransmitted packet

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Question 19 (5 points) Saved

What is the difference between the flow field in the packet header and the flow field in the payload header?

- The flow field in the packet header does not control the entire Bluetooth baseband link. The flow field in the payload header controls the data transfer for that particular L2CAP connection.
- (•) The flow field in the packet header controls the entire Bluetooth baseband link. The flow field in the payload header controls the data transfer for that particular L2CAP connection only.
- The flow field in the packet header controls the data transfer for that particular L2CAP connection. The flow field in the payload header controls the entire Bluetooth baseband link only
- The flow field in the packet header controls the entire Bluetooth baseband link. The flow field in the payload header does not control the data transfer for that particular L2CAP connection.

Question 20 (5 points) Saved

What is the use of ARQN bit in the Bluetooth packet header?

- (•) Acknowledge for received packets with or without errors
- Sequence number of the packet to indicate the new packet or retransmitted packet
- Indicate the packet's type used
- For Header Error Correction

Submit Quiz 20 of 20 questions saved