Quiz

Note: It is recommended that you save your response as you complete each question.

Question 1 (1 point)

If two devices are advertising for a connection with identical advertising intervals, and their advertising overlaps each other so that the combined interference prevented either one from finding a connection, what mechanism is used minimize the chance of these two devices interfering with each other on the next advertising event?

- ( ) Devices when configured are set with a priority which will be used by the the devices to determine who will have access to the next advertising event
- ( ) Each device will randomly increase or decrease their transmit power enabling one device to potential over power the other device during the next advertising event.
- ( ) Each advertiser will randomly skip 0-10 advertising events to prevent a possible overlap
- (•) The time interval between packets has both a fixed and random delay.

Save

Question 2 (1 point)

If a NAND memory that has a maximum number of 15,000 erase cycles per page and has a total of 10 pages configured as follows:

4 program pages

2 data pages

4 empty pages

What is the maximum number of erase cycles could this NAND memory typically experience if there is dynamic wear leveling?

90000

Save

Question 3 (1 point)

Which set of keys enable devices to bond and not require pairing when the devices reconnect?

- [ ] TK
- [ ] STK
- [x] CSRK
- [x] IRK
- [ ] Passkey
- [x] LTK

Save

Question 4 (1 point)

In an end application, what is the main influence on NAND memory data retention? (single word answer)

temperature

Save

Question 5 (1 point)

What happens to the voltage oscillation of an inductive proximity sensor when a metallic object is near the coil?

- ( ) Enhanced
- ( ) Stays the same
- (•) Dampened

Save

Question 6 (1 point)

FLASH single big data retentions failures are erroneous 1s?

- ( ) True
- (•) False

Save

Question 7 (1 point)

High performance eddy-current inductive sensors are used typically in what type of applications? (select all that apply)

- [ ] Proximity switches
- [x] Position and/or change of position of a conductive target
- [ ] Benign environments
- [x] Harsh environments

Save

Question 8 (1 point)

The BLE master coordinates the medium access between the master and the slave by providing what of the following information. Please select all that apply.

- [x] Provides the slave the frequency hopping number
- [ ] Map of which frequency channels that will not be used
- [x] Sets the slave TX power
- [ ] Determines the instants in which the slave is required to listen

Save

Question 9 (1 point)

Why are connections not allowed by Bluetooth Smart Beacons?

- (•) Once a connection is established, the Beacon would stop participating in advertising events
- ( ) Beacons are assets that must be secured, and preventing connections insures their security
- ( ) Not entering a connection conserves energy for the Bluetooth Smart Beacon
- ( ) The Beacon has a reduced BLE stack to save cost and energy that prevents it from entering a connection

Save

Question 10 (1 point)

What type of failures can result in NAND logical 1 bits becoming erroneous 0s?

- [ ] Not possible to have a NAND 1 bit erroneous as a 0
- [ ] Leakage current
- [ ] Erase Disturb
- [x] Write Disturb

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