



Hands-on Internet of Things Specialization

IoT Communications

Week 3

Question 1:

What IoT protocol would be most appropriate for having a heart monitor communicate with a smartphone in the person's pocket every 2 minutes?

Bluetooth LE

Question 2:

True or False: The Zigbee Protocol is entirely in layers 1 and 2.

False

Question 3:

With link state update propagation, what is the contents of some node n's topological map before performing link-state advertisements?

A map of all of n's neighbors

Question 4:

True or False: Proactive routing determines routes as needed.

False



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Question 5:

Imagine a topology where F is connected to G and G is connected to H. There are no other nodes or edges in the network graph. In distance vector routing, what will G tell H about G's connection to F?

"G is one hop away from F"

Question 6:

Link-state uses ___ algorithm and Distance Vector uses ___ algorithm

(Dijkstra's, Bellman-Ford)

Question 7:

OLSR is an optimized version of which class of traditional routing algorithms?

Link-State

Question 8:

What does OLSR optimize compared to "vanilla" link-state?

The number of total broadcasts required for all nodes to have a complete topological map of the network



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Question 9:

True or False: OLSR selects the optimal number of nodes to be MPRs and forward advertisements.

False

Question 10:

True or False: A route discovered by Dynamic Source Routing may not be the shortest possible route from a source node to a destination node within the network.

True

Question 11:

Which of the following routing protocols embeds the path within the actual data packet when it is sent?

DSR