✖ Try again once you are ready.

Required to pass: 80% or higher

You can retake this quiz up to 3 times every 8 hours.

Back to Week 3

Retake

✔ 1 / 1 point

1. Napster servers, as discussed in lecture, *do not* store which of the following? (1 point)

✔ 1 / 1 point

2. Which of the following Gnutella messages is reverse-routed? (1 point)

✔ 1 / 1 point

3. In BitTorrent, a newly joined leecher X is trying to download a file with 6 blocks B1–B6. X has 3 neighbors: A, B, and C. These neighbors are storing the following blocks of the file: A: {B1, B2, B4, B5}; B:{B2, B3, B4, B5, B6}; C:{B1, B2, B6}. Then X will prefer downloading which block first? (1 point)

✔ 1 / 1 point

4. A Pastry DHT has a peer P with the following neighbors. P currently has to route a query to key 101001011010. Which of the following neighbors is the best next-hop for this query? (1 point)

Homework 3

Quiz, 14 questions

5. In the Chord DHT when a peer P fails from the system, which of the following **will not** happen? (1 point)

1 / 1 point

6. A Gnutella topology looks like a balanced ternary tree with 5 levels of nodes, i.e., peers. Thus, there is 1 root at Level 1, which has 3 children at Level 2, which each have 3 children at Level 3, which in turn each have 3 children at Level 4, which in turn each have 3 children at Level 5 – thus, there are a total of 121 nodes.

   If the root node (Level 1) sends a Query message with TTL=3, then what are the number of nodes receiving the Query message, not including the originating node? Enter your answer as a numeric value in the text box below. (1 point)

1 / 1 point

7. A Gnutella topology looks like a balanced ternary tree with 5 levels of nodes, i.e., peers. Thus, there is 1 root at Level 1, which has 3 children at Level 2, which each have 3 children at Level 3, which in turn each have 3 children at Level 4, which in turn each have 3 children at Level 5 – thus, there are a total of 121 nodes.

   If a leaf (Level 5) node sends a Query message with TTL=2, then what are the number of nodes receiving this message, not including the originating node? Enter your answer as a numeric value in the text box below. (1 point)

1 / 1 point

✖

0 / 1 point

8. A Gnutella topology looks like a balanced ternary tree with 5 levels of nodes, i.e., peers. Thus, there is 1 root at Level 1, which has 3 children at Level 2, which each have 3 children at Level 3, which in turn each have 3 children at Level 4, which in turn each have 3 children at Level 5 – thus, there are a total of 121 nodes.

If a child of the root (i.e., a Level 2 node) sends a Query message with TTL=5, then what are the number of nodes receiving the Query message, not including the originating node? Enter your answer as a numeric value in the text box below. (1 point)

✖

0 / 1 point

9. A Gnutella topology looks like a balanced ternary tree with 5 levels of nodes, i.e., peers. Thus, there is one root at Level 1, which has 3 children at Level 2, which each have 3 children at Level 3, which in turn each have 3 children at Level 4, which in turn each have 3 children at Level 5 – thus, there are a total of 121 nodes.

What is the minimum TTL required for any node's Query to reach every other node? Enter your answer as a numeric value in the text box below. (1 point)

✔

1 / 1 point

10. In a Chord ring using m = 8, nodes with the following peer ids (or node ids) join the system: 45, 32, 132, 234, 99, 199. What node id is the file with id 120 stored at (assuming only one replica)? Enter your answer as a numeric value in the text box below. (1 point)

✔

1 / 1 point

11. In a Chord ring using m = 8, nodes with the following peer ids (or node ids) join the system: 45, 32, 132, 234, 99, 199.

What is the successor of node 199? Enter your answer as a numeric value in the text box below. (1 point)

✔ 1 / 1 point

12. In a Chord ring using m = 8, nodes with the following peer ids (or node ids) join the system: 45, 32, 132, 234, 99, 199. What is the comma-separated list of 8 finger table entries at node 45?

Use the text box below to **enter your answer as a sequence of numeric values with each numeric value separated by a comma. Please ensure you enter one number for each finger table id i (you do not need to enter i, but only the node id's).** (1 point)

✖ 0 / 1 point

13. In a Chord ring using m = 9, nodes with the following peer ids (or node ids) join the system: 1, 12, 123, 234, 345, 456, 501. If node 234 fails, which of the following nodes will not update any of their finger table entries or successors? (1 point)

✖ 0 / 1 point

14. In a Chord ring using m = 8, nodes with the following peer ids (or node ids) join the system: 45, 32, 132, 234, 99, 199. If node 45 fails, then what is the comma-separated list of all the nodes whose finger tables need to be updated?

Use the text box below to **enter your answer as a sequence of numeric values with each numeric value separated by a comma. Please ensure you list nodes in increasing order of id**. (1 point)