Assignment 1

Due on 2020-09-20, 23:09:15

1) Distributed Hash Tables (DHTs) are scalable because:
   a) Java/C++ speed
   b) Logarithmic partitioning is used for routing
   c) A tree organizes the joining and leaving of nodes deterministically
   Which of the above statements is true? Choose the correct code.
   a) 1 only
   b) 1 and 2
   c) 2 only
   d) 3 only
   e) 1, 2, and 3

2) Which type of index is used by DHT implementations?
   a) Centralized indexing
   b) Distributed indexing
   c) Decentralized indexing
   d) All of the above
   e) None of the above

3) A hash can be done using a Distributed Hash Table (DHT) infrastructure?
   a) Efficiently finding which node is responsible for a key, value pair
   b) Profiling the neighbor index of a node if the ID is known
   c) Taking up of a conference call
   d) Which of the above statements is true? Choose the correct code.
   a) 1 only
   b) 1 and 2
   c) 2 only
   d) 1, 2, and 3
   e) None of the above

4) Do the answers to the following statements list the correct answer?
   a) No, the answers to the following statements list the correct answer.
   b) Yes, the answers to the following statements list the correct answer.
   c) None of the above

5) If the index of the table is to be searched, the lookups in DHT are:
   a) DHTs
   b) SPHs
   c) None of the above
   d) All of the above

6) Do the answers to the following statements list the correct answer?
   a) No, the answers to the following statements list the correct answer.
   b) Yes, the answers to the following statements list the correct answer.
   c) None of the above
   d) All of the above

7) Consider the following statements about DHTs and DMS:
   i) The DHT name system allows clients to query any DNS server for the IP address associated with a given hostname. DHTs can be used to provide such a service.
   ii) The property that distinguishes a DHT from DNS is that the expiration of its data is self-managing.
   iii) DHTs dynamically declare which nodes is responsible for which items.
   iv) DNS dynamically forms a two-level hierarchy, which it divides into zones.
   Which of the above statements is true? Select the correct code given below.
   a) i, ii, iii
   b) i, iv
   c) i, ii, iii, iv
   d) None of the above

8) Do the answers to the following statements list the correct answer?
   a) No, the answers to the following statements list the correct answer.
   b) Yes, the answers to the following statements list the correct answer.
   c) None of the above
   d) All of the above

9) Consider the following statements about digital signatures:
   a) A digital signature scheme consists of a signature generation algorithm using context and private key and an associated verification algorithm using context and public key.
   b) Digital signatures are used for the integrity of security certification containing public keys.
   c) Digital signature can be used only because authentication is not correct for data integrity.
   d) The following options are not secure for Digital Signature, select the correct code.
   a) LS
   b) MS
   c) L
   d) S

10) Do the answers to the following statements list the correct answer?
    a) No, the answers to the following statements list the correct answer.
    b) Yes, the answers to the following statements list the correct answer.
    c) None of the above
    d) All of the above

11) The following hash strategies are applicable to every DHT:
    a) Autonomic load balancing
    b) Random lookups
    c) Ideal topology
    d) Waste of time
    e) None of the above
    f) All of the above

12) Do the answers to the following statements list the correct answer?
    a) No, the answers to the following statements list the correct answer.
    b) Yes, the answers to the following statements list the correct answer.
    c) None of the above
    d) All of the above

13) Do the answers to the following statements list the correct answer?
    a) No, the answers to the following statements list the correct answer.
    b) Yes, the answers to the following statements list the correct answer.
    c) None of the above
    d) All of the above