M7A1Solution CSS 211/ CS 459 Spring 2020 Covers: Chapter 7 of textbook

DATE ASSIGNED: March 10, 2020 DATE DUE: March 16, 2020 POINTS: 28

[A, 10 points] Multiple Choice

[A1] Access control provided by an operating system is at the \_\_\_\_\_\_\_\_\_\_\_\_\_ level. (a)

(a) file (b) record or element

[A2] Access control needed by a DBMS is at the \_\_\_\_\_\_\_\_\_\_\_\_\_ level. (b)

(a) file (b) record or element

[A3] To be able to reconstruct the database at the point of failure, the DBMS must maintain a \_\_\_\_\_\_\_\_\_\_\_\_\_. (b)

(a) data dictionary (b) log of transactions

[A4] Accessing a record or an element without transferring to the user the data received is called the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ problem. (a)

(a)pass-through (b) concurrent access

[A5] \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a Big Data Application Framework. (a)

(a) Hadoop (b) Kerberos

[A6] Hidden attributes for pictures are called \_\_\_\_\_\_\_\_- data. (a)

(a) meta (b)pic

[A7] Data \_\_\_\_\_\_\_\_\_\_\_\_\_ blocks release of sensitive data. (a)

(a)suppression (b) concealing

[A8] Data \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ releases part or an approximation of sensitive data. (b)

(a)suppression (b) concealing

[A9] A DBMS is \_\_\_\_\_\_\_\_\_\_. (a)

(a) software (b) data

[A10] A Database is \_\_\_\_\_\_\_\_\_\_\_\_\_. (b)

(a) software (b) data

[B, 18 points] For each of the following, state if it is TRUE or FALSE.

[B1] To query a database, users must know the physical organization of the data in the database. (F)

[B2] A DBMS runs as an application program on top of the operating system. (T)

[B3] One way to protect the data in a database against catastrophic failure is to perform regular backups. (T)

[B4] The DBMS need not do its own authentication; it can rely on the operating system for authentication. (F)

[B5] All aspects of the CIA triad relate to database systems. (T)

[B6] The intent phase of the two-phase update can be repeated any number of times. (T)

[B7] The commit phase of the two-phase update cannot be repeated. (F)

[B8] Data disclosure through inference and aggregation is very hard for the DBMS to control. (T)

[B9] Data Security was incorporated into Hadoop from the very beginning. (F)

[B10] Data Mining can support analysis of security data. (T)

[B11] A DBMS can apply field checks. (T)

[B12] Security enhancements to Hadoop result in Hadoop Secure Mode. (T)

[B13] The term Big Data means analysis of massive amounts of data, collected from different sources. (T)

[B14] Data Mining uses statistics, machine learning , mathematical models ,pattern recognition, and other techniques, to discover patterns and other relations on large data sets. (T)

[B15] The goal, called “Precision” aims to protect all sensitive data, while revealing as much non-sensitive data as possible. (T)

[B16] To be able to recover from failures during database modification, the two-phase update is used.

(T)

[B17] The problems of concurrent modification and read-write can be dealt with using the concepts of

atomic operations and locking. (T)

[B18] In databases, Availability does not conflict with Confidentiality. (F)