1. A(n) \_\_\_\_\_\_\_\_\_ can be used to preserve the integrity of a document or a message.  
a) Message digest  
b) Message summary  
c) Encrypted message  
d) None of the mentioned

Answer: c  
Explanation: Encryption algorithms are used to keep the contents safe.

2. A hash function must meet \_\_\_\_\_\_\_\_ criteria.  
a) Two  
b) Three  
c) Four  
d) None of the mentioned

Answer: b  
Explanation: Only if the criteria is fulfilled the values are hashed.

3. What is the main limitation of Hierarchical Databases?  
a) Limited capacity (unable to hold much data)  
b) Limited flexibility in accessing data  
c) Overhead associated with maintaining indexes  
d) The performance of the database is poor

Answer: b  
Explanation: In this, the data items are placed in a tree like hierarchical structure.

4. The property (or set of properties) that uniquely defines each row in a table is called the:  
a) Identifier  
b) Index  
c) Primary key  
d) Symmetric key

Answer: c  
Explanation: Primary is used to uniquely identify the tuples.

5. The separation of the data definition from the program is known as:  
a) Data dictionary  
b) Data independence  
c) Data integrity  
d) Referential integrity

Answer: b  
Explanation: Data dictionary is the place where the meaning of the data are organized.

6. In the client / server model, the database:  
a) Is downloaded to the client upon request  
b) Is shared by both the client and server  
c) Resides on the client side  
d) Resides on the server side

Answer: d  
Explanation: The server has all the database information and the client access it.

7. The traditional storage of data that is organized by customer, stored in separate folders in filing cabinets is an example of what type of ‘database’ system?  
a) Hierarchical  
b) Network  
c) Object oriented  
d) Relational

Answer: a  
Explanation: Hierarchy is based on Parent-Child Relationship. Parent-Child Relationship Type is basically 1:N relationship.

8. The database design that consists of multiple tables that are linked together through matching data stored in each table is called  
a) Hierarchical database  
b) Network database  
c) Object oriented database  
d) Relational database

Answer: d  
Explanation: A relational database is a collection of data items organized as a set of formally described tables from which data can be accessed or reassembled.

9. The association role defines:  
a) How tables are related in the database  
b) The relationship between the class diagram and the tables in the database  
c) The tables that each attribute is contained  
d) Which attribute is the table’s primary key

Answer: a  
Explanation: The tables are always related in the database to form consistency.

10. The purpose of an N-Ary association is:  
a) To capture a parent-child relationship  
b) To deal with one to many relationships  
c) To deal with relationships that involve more than two tables  
d) To represent an inheritance relationship

Answer: c  
Explanation: The is binary n-array association meaning more than two classes are involved in the relationship.