RDBMS

1. **Which of the following is a type of SQL constraint?**

A) PRIMARY KEY

B) FOREIGN KEY

C) UNIQUE

D) All of the above

Answer: D

1. **Which command is used to modify an existing table structure?**

A) ALTER TABLE

B) MODIFY TABLE

C) UPDATE TABLE

D) CHANGE TABLE

Answer: A

1. **What does the TRUNCATE TABLE command do?**

A) Deletes all rows from the table without logging individual row deletions

B) Removes the table structure from the database

C) Drops the table and all its data

D) Resets the table to its initial state

Answer: A

**4) Which type of join returns all rows from the left table and matched rows from the right table?**

A) INNER JOIN

B) LEFT JOIN

C) RIGHT JOIN

D) FULL JOIN

Answer: B

1. **Which function is used to convert a string to an integer in SQL Server?**

A) CONVERT()

B) CAST()

C) INT()

D) PARSE()

Answer: B

6) **What is the purpose of the HAVING clause?**

A) To filter the results of a GROUP BY query

B) To join two tables

C) To filter individual rows before grouping

D) To sort the result set

Answer: A

1. **What is the main difference between INNER JOIN and OUTER JOIN?**

A) INNER JOIN returns only matching rows, while OUTER JOIN returns all rows from one or both tables

B) INNER JOIN returns all rows from both tables, while OUTER JOIN returns only matching rows

C) INNER JOIN is used for updates, while OUTER JOIN is used for deletions

D) INNER JOIN and OUTER JOIN are identical in functionality

Answer: A

**8) Which of the following is NOT a SQL Server aggregate function?**

A) AVG()

B) COUNT()

C) MAX()

D) REPLACE()

Answer: D

1. **What is a VIEW in SQL Server?**

A) A virtual table based on the result of a SELECT query

B) A physical copy of a table

C) A stored procedure

D) An index on a table

Answer: A

**10)What does the INDEX on a table do in SQL Server?**

A) Improves query performance by allowing faster data retrieval

B) Encrypts the data in the table

C) Automatically backs up the table

D) Sets default values for columns

Answer:A

**11)Which query will return all employees who live in the USA?**

* a) SELECT \* FROM Employees WHERE Country = 'UK';
* b) SELECT \* FROM Employees WHERE Country LIKE 'US%';
* c) SELECT \* FROM Employees WHERE Country = 'USA';
* d) SELECT \* FROM Employees WHERE Country IN ('USA', 'Canada');

**Answer:** c) SELECT \* FROM Employees WHERE Country = 'USA';

**12) Which of the following is a correct syntax to create a stored procedure in T-SQL?**

* a) CREATE PROCEDURE proc\_name AS BEGIN ... END
* b) CREATE FUNCTION proc\_name AS BEGIN ... END
* c) CREATE PROC proc\_name AS BEGIN ... END
* d) CREATE PROC\_NAME AS BEGIN ... END

**Answer:** a) CREATE PROCEDURE proc\_name AS BEGIN ... END

13) **In T-SQL, which keyword is used to ensure that all SQL statements in a transaction are executed successfully?**

* a) COMMIT
* b) ROLLBACK
* c) SAVEPOINT
* d) BEGIN TRANSACTION

**Answer:** a) COMMIT

Software development

14) **What does a velocity chart in Agile represent?**

* a) The team's productivity in terms of story points completed per sprint.
* b) The total number of sprints completed by the team.
* c) The amount of time each team member spends on tasks.
* d) The total number of defects found and fixed per sprint.

**Answer:** a) The team's productivity in terms of story points completed per sprint.

15) **What is the primary purpose of a Daily Standup (Daily Scrum) meeting in Agile?**

* a) To discuss project documentation
* b) To review the progress of long-term project goals
* c) To coordinate team efforts and identify impediments
* d) To negotiate contract details with stakeholders

**Answer:** c) To coordinate team efforts and identify impediments

Mongodb

1. **Which of the following is the command to display all databases in MongoDB?**

* a) show collections
* b) show dbs
* c) list dbs
* d) db show

**Answer:** b) show dbs

2. **Which command is used to insert a document into a MongoDB collection?**

* a) db.collection.add()
* b) db.collection.insertOne()
* c) db.collection.save()
* d) db.collection.update()

**Answer:** b) db.collection.insertOne()

3. **How do you create an index on the 'name' field in a collection called 'students'?**

* a) db.students.createIndex({name: 1})
* b) db.students.addIndex({name: 1})
* c) db.students.index({name: 1})
* d) db.students.indexOn({name: 1})

**Answer:** a) db.students.createIndex({name: 1})

4. **What does the $match operator do in an aggregation pipeline?**

* a) Filters documents
* b) Groups documents
* c) Sorts documents
* d) Limits documents

**Answer:** a) Filters documents

5. **How do you find all documents in a collection called 'books'?**

* a) db.books.findAll()
* b) db.books.getAll()
* c) db.books.find()
* d) db.books.showAll()

**Answer:** c) db.books.find()

6. **Which of the following is a primary characteristic of a NoSQL database like MongoDB?**

* a) Fixed schema
* b) Relational model
* c) Scalability and flexibility
* d) SQL-based queries

**Answer:** c) Scalability and flexibility

7. **What is the purpose of the \_id field in a MongoDB document?**

* a) To store user data
* b) To store the collection name
* c) To uniquely identify the document
* d) To store the database name

**Answer:** c) To uniquely identify the document

8. **What does the $project stage do in an aggregation pipeline?**

* a) Filters documents
* b) Groups documents
* c) Reshapes each document by including, excluding, or adding new fields
* d) Sorts documents

**Answer:** c) Reshapes each document by including, excluding, or adding new fields

9. **What is the purpose of the $inc operator in MongoDB?**

* a) To increment the value of a field by a specified amount
* b) To include a field in the result set
* c) To increase the size of the database
* d) To create an index

**Answer:** a) To increment the value of a field by a specified amount

10. **Which query would you use to find all employees in the Employees collection who work in the "IT" department and earn a salary greater than 70000?**

* a) db.Employees.find({ "Department": "IT" })
* b) db.Employees.find({ "Salary": { "$gt": 70000 } })
* c) db.Employees.find({ "Department": "IT", "Salary": { "$nor": 70000 }
* d) db.Employees.find({ "Department": { "$eq": "IT" }, "Salary": 70000

**Answer:** c) db.Employees.find({ "Department": "IT", "Salary": { "$gt": 70000 } })