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## CS5340 Databases – Fall 2025 ( Quiz # 1 )

Name: \_\_\_\_\_

Roll No: \_\_\_\_\_

### Instructions

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- 1- Read the Questions carefully to give concise Answers.
  - 2- Answers outside the box will not be considered. Answers should be readable
  - 3- Clearly mention any assumptions you have taken in your Answers.
  - 4- Explanation is only optional for MCQs that are based on definitions.
  - 5- Use of unfair means will result in an award of ZERO marks.
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Q1. Which statement about tuples in a relation is correct?

- A. Tuples must be stored in sorted order
- B. Tuples are unique within a relation
- C. Tuples are identified by their position in the table
- D. Tuples can only be added if all attributes are NULL

Explain your answer:

Q2. Which SQL Server column type is best suited for storing addresses of varying lengths?

- A. CHAR
- B. VARCHAR
- C. INT
- D. BIT

Explain your answer:

Q3. An employee table has DeptID as a foreign key referencing Department(DeptID). What does this enforce?

- A. Every department must have at least one employee
- B. Every employee must belong to a valid department
- C. Departments cannot be deleted
- D. Employees cannot be NULL

Explain your answer:

Q4. Which constraint ensures a column cannot store NULL values?

- A. DEFAULT
- B. UNIQUE
- C. CHECK
- D. NOT NULL

Explain your answer:

Q5. A table has candidate keys (Email, Phone). If Email is chosen as the primary key, what is Phone?

- A. Superkey
- B. Alternate key
- C. Foreign key
- D. Composite key

Explain your answer:

Q6. In SQL Server, what happens if you insert Age = 15 when a column has CHECK (Age >= 18)?

- A. Insert succeeds with Age = 15
- B. Insert fails because constraint is violated
- C. Insert succeeds but Age becomes 18 automatically
- D. Insert fails only if Age is NULL

Explain your answer:

Q7. Which schema is used by default in SQL Server when none is specified?

- A. master
- B. tempdb
- C. dbo
- D. msdb

Explain your answer:

Q8. Which of the following is NOT a purpose of a schema?

- |                               |                              |
|-------------------------------|------------------------------|
| A. Organizing objects         | B. Avoiding naming conflicts |
| C. Storing actual data values | D. Managing security         |

Explain your answer:

Q9. Which SQL Server system database stores job schedules and backup history?

- |           |           |
|-----------|-----------|
| A. master | B. model  |
| C. msdb   | D. tempdb |

Explain your answer:

Q10. Which SQL category is used for assigning permissions?

- |        |        |
|--------|--------|
| A. DML | B. DDL |
| C. DCL | D. TCL |

Explain your answer:

Q11. Which function replaces NULL values with a specified literal value in SQL Server?

- |           |           |
|-----------|-----------|
| A. NULLIF | B. ISNULL |
| C. CAST   | D. PARSE  |

Explain your answer:

Q12. What is the result of `NULL + 10` in SQL Server?

- |        |          |
|--------|----------|
| A. 10  | B. 0     |
| C. nan | D. Error |

Explain your answer:

Q13. Which SQL clause is used to sort query output?

- |             |             |
|-------------|-------------|
| A. SORT     | B. ORDER BY |
| C. GROUP BY | D. HAVING   |

Explain your answer:

Q14. Why is the `WITH MOVE` clause required when restoring `AdventureWorks` in Docker?

- |   |   |
|---|---|
| A. To compress backup files             | B. To remap logical files to valid physical paths |
| C. To rename the database automatically | D. To enable user access during restore           |

Explain your answer:

Q15. In C#, which data type is best for storing decimal numbers like 10.5?

- |           |         |
|-----------|---------|
| A. int    | B. bool |
| C. double | D. char |

Explain your answer:

END OF QUIZ

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