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CS5340 Databases – Fall 2025 (Quiz # 1)

Name: _____

Roll No: _____

Instructions

- 1- Read the Questions carefully to give concise Answers.
 - 2- Answers outside the box will not be considered. Answers required to 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. In the relational model, why is the order of rows and columns considered irrelevant?

A. Because SQL Server automatically stores rows in sorted order

B. Because relations are defined as sets, and sets have no ordering

C. Because duplicate rows are not allowed

D. Because schema always enforces column order

Explain your answer:

Q2. You define a column as Col1 CHAR(6) and insert 'CS340'. Why might a search for 'CS340' fail?

A. CHAR stores padded spaces, so the value is actually 'CS340 '

B. SQL Server automatically trims all CHAR values

C. CHAR columns convert automatically to VARCHAR

D. CHAR values are always case-sensitive

Explain your answer:

Q3. Which SQL Server column type is most appropriate for storing names in multiple languages (English, Arabic, Urdu)?

A. NCHAR

B. VARCHAR

C. NVARCHAR

D. TEXT

Explain your answer:

Q4. In a university database, Students(StudentID) is a primary key. Which situation violates the relational model?

- A. Two rows have the same StudentID with different names
- B. Rows are stored in different physical disk blocks
- C. Columns appear in a different order when queried
- D. A query result contains duplicates

Explain your answer:

Q5. A customer's age must always be ≥ 18 . Which constraint ensures this?

- A. PRIMARY KEY
- B. CHECK
- C. DEFAULT
- D. FOREIGN KEY

Explain your answer:

Q6. If you try to insert NULL into a primary key column in SQL Server, what happens?

- A. Insert succeeds because one NULL is allowed
- B. Insert fails cause primary keys cant be NULL
- C. Insert succeeds if UNIQUE is also applied
- D. Insert fails only if column is foreign key

Explain your answer:

Q7. How does a foreign key maintain referential integrity?

- A. By preventing duplicate rows in parent table
- B. By ensuring child values must exist in parent
- C. By automatically creating indexes
- D. By disallowing NULLs in child column

Explain your answer:

Q8. In SQL Server, what happens if no schema is specified when creating a table?

- A. Table cannot be created
- B. Table is placed in dbo schema
- C. Table is created in a temporary schema
- D. Table is assigned to msdb

Explain your answer:

Q9. Why might a company design multiple schemas such as hr.Employee and sales.Employee?

- A. To reduce database size
- B. To enforce automatic foreign keys
- C. To avoid naming conflicts and organize objects
- D. To compress table storage

Explain your answer:

Q10. Which SQL Server system database is recreated every time the server restarts and is used for temporary objects?

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

Explain your answer:

Q11. Which category of SQL statements would you use to create tables and schemas?

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

Explain your answer:

Q12. Which function safely tries to convert a string to an integer but returns NULL instead of error if conversion fails?

- A. CAST
- B. CONVERT
- C. TRY_CAST
- D. PARSE

Explain your answer:

Q13. You want to return 'N/A' whenever the column DiscountCode is NULL. Which expression works?

- A. NULLIF(DiscountCode, 'N/A')
- B. COALESCE(DiscountCode, 'N/A')
- C. CAST(DiscountCode AS varchar)
- D. DiscountCode = 'N/A'

Explain your answer:

Q14. A query groups orders by CustomerID. To filter out groups with fewer than 5 orders, which clause is correct?

- A. WHERE COUNT(OrderID) > 5
- B. HAVING COUNT(OrderID) > 5
- C. GROUP BY COUNT(OrderID) > 5
- D. FILTER COUNT(OrderID) > 5

Explain your answer:

Q15. In a C# console app, why is the static void Main(string[] args) method required?

- A. It is used only for debugging
- B. It defines the program's entry point
- C. It initializes global variables
- D. It compiles external libraries

Explain your answer:

END OF QUIZ
