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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.

Q1. In the relational model, why is the order of rows and columns considered irrelevant?

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| 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:

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

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| 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:

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

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| A. NCHAR | B. VARCHAR |
| C. NVARCHAR | D. TEXT |

Explain your answer:

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

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| 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:

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

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

Explain your answer:

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

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| 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:

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Q7. How does a foreign key maintain referential integrity?

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| 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:

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

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| 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:

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

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| 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:

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

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

Explain your answer:

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

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

Explain your answer:

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

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| A. CAST | B. CONVERT |
| C. TRY\_CAST | D. PARSE |

Explain your answer:

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

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

Explain your answer:

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

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

Explain your answer:

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

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| 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:

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END OF QUIZ  
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