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### CS5340 Databases – Fall 2025 ( Quiz # 0 )

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

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

#### Instructions

- 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- Use of unfair means will result in an award of ZERO marks.

Q1. Which of the following is NOT a feature of a modern database?

- |                            |                                     |
|----------------------------|-------------------------------------|
| A. Centralized Access      | B. Real-time Sharing                |
| C. Manual sorting of files | D. Efficient storage and management |

Explain your answer:

Q2. Which of the following best describes a database?

- |  |  |
|--|--|
| A. A file system for saving documents only | B. An organized collection of data stored electronically for efficient access and management |
| C. A programming language for queries      | D. A computer hardware device for storage  |

Explain your answer:

Q3. Which of the following best explains why social media platforms like Facebook and TikTok need databases?

- |                                       |   |
|---------------------------------------|---|
| A. To store only login credentials    | B. To store and analyze user content, interactions, and recommendations |
| C. To reduce internet bandwidth usage | D. To prevent users from deleting posts                                 |

Explain your answer:

Q4. Which is an example of semi-structured data?

- A. A CSV payroll file
- B. JSON file of user profile data
- C. Printed sales report
- D. A scanned book image

Explain your answer:

Q5. Which of the following is an example of semi-structured data?

- A. Employee records stored in an SQL table (Name, ID, Salary)
- B. A folder of customer support chat screenshots
- C. A JSON file containing user profile information
- D. A printed report of monthly sales figures

Explain your answer:

Q6. Which problem was solved by introducing databases in exam systems?

- A. Risk of paper damage during shipping
- B. Needing more warehouses
- C. Too many authorized users
- D. High cost of encryption

Explain your answer:

Q7. Which of the following is a real-life use of databases in healthcare?

- A. Recording songs on CDs
- B. Patient records, prescriptions, and lab results
- C. Filing handwritten receipts
- D. Organizing physical X-ray films

Explain your answer:

Q8. Which statement best describes the relationship between a public key and a private key in asymmetric encryption?

- A. Both keys are identical and kept secret
- B. The public key is shared openly, while the private key is kept secret
- C. Both keys must always be kept private to ensure security
- D. The public key is used only for authentication, not encryption

Explain your answer:

Q9. why is port 1433 important for Microsoft SQL Server?

- A. It is the default port used by SQL Server for broadcasting messages
- B. It is the default port SQL Server listens on for incoming client connections
- C. It is a random port assigned to SQL Server during installation
- D. It is used by web servers to handle HTTP requests

Explain your answer:

Q10. Why do organizations value data?

- A. To reduce network speed
- B. To track performance, predict trends, and make smart decisions
- C. To remove the need for employees
- D. To replace hardware systems

Explain your answer:

Q11. Which of the following best defines data?

- A. Processed information ready for decisions
- B. Raw facts and figures without context
- C. A collection of insights and reports
- D. Organized tables in a DBMS

Explain your answer:

Q12. Why is sharing exam data easier with databases?

- A. Data must be shipped physically
- B. Data can be instantly accessed online from anywhere
- C. Multiple duplicate copies are made
- D. Examiners exchange CDs or USBs

Explain your answer:

Q13. Which is an example of database use in government systems?

- A. YouTube playlists
- B. Passport and CNIC records
- C. Online shopping carts
- D. Multiplayer game rankings

Explain your answer:

Q14. Which feature ensures the same records are visible to all users accessing a database?

- A. Encryption
- B. Data Integrity
- C. Indexing
- D. Cloud Hosting

Explain your answer:

Q15. Which type of data does not follow a fixed format or structure?

- A. Structured data
- B. Semi-structured data
- C. Unstructured data
- D. Tabular data

Explain your answer:

Q16. Which of the following is a unique feature of asymmetric encryption compared to symmetric encryption?

- A. It uses a single secret key for both encryption and decryption.
- B. It does not requires secret keys.
- C. It uses a mathematically linked pair of keys (public & private) where one key encrypts and only the other can decrypt.
- D. It is generally faster and more efficient for bulk data encryption.

Explain your answer:

Q17. Which of the following is NOT a typical use case for NoSQL databases?

- A. Real-time analytics
- B. Chat applications
- C. Content feeds
- D. Traditional relational accounting systems

Explain your answer:

Q18. Which is an example of structured data?

- A. Employee table with ID, Name, and Salary
- B. A folder of holiday pictures
- C. Chat messages in WhatsApp
- D. Customer reviews in free text

Explain your answer:

Q19. Which of the following is a major challenge of symmetric key encryption?

- A. It requires significantly more computational power than asymmetric key encryption
- B. Secure key distribution between communicating parties
- C. Managing a large number of keys in a network
- D. Keys automatically expire after each use

Explain your answer:

Q20. Which of these is an example of semi-structured data?

- A. A log of temperature readings in Excel
- B. A folder of PDF resumes
- C. JSON or XML files
- D. A handwritten ledger

Explain your answer: