**Database Management System**

1. What are the different types of keys in DBMS? Explain with examples.  
   (Covers primary, candidate, super, foreign, and composite keys)
2. Explain the difference between SQL and NoSQL databases. When would you use each?
3. Describe the ACID properties in a database transaction with real-life examples.
4. What is normalization? Explain 1NF, 2NF, and 3NF with suitable examples.
5. Differentiate between DELETE, TRUNCATE, and DROP statements in SQL.
6. Explain JOINs in SQL. What are the differences between INNER JOIN and OUTER JOIN?
7. What is indexing in DBMS? How does it improve performance?
8. Write SQL queries for the following:
   * Select top 3 highest-paid employees from a table.
   * Count the number of students enrolled in each course.
9. What is a transaction? Explain the states of a transaction.
10. Differentiate between a clustered and non-clustered index.
11. Explain the differences between relational and non-relational databases.
12. What is the difference between WHERE and HAVING clause in SQL? Provide an example.
13. Describe the concept of views in SQL. What are its advantages and limitations?
14. What are triggers in SQL? Write an example scenario where a trigger is useful.
15. Explain the concept of foreign key constraints. Why are they important?
16. How does a DBMS handle concurrency control? Mention any two techniques.
17. What are stored procedures? How are they different from functions in SQL?
18. Compare and contrast the file system and DBMS.
19. What is denormalization? When is it preferred in database design?
20. Write SQL queries to perform:
    * Find duplicate entries in a table.
    * Retrieve the second highest salary from an Employee table.