



**SILVER OAK  
UNIVERSITY**  
EDUCATION TO INNOVATION

**School of Technology, Design and Computer Application**

**Silver Oak College of Computer Application  
Department of Computer Science**

**Bachelor of Science Computer Science & Information Technology**

**Integrated Master of Science In Information Technology**

**MCQ Questions**

1. **What is the primary function of a database management system (DBMS)?**
  - a) Data processing
  - b) Data storage, retrieval, and management
  - c) Data visualization
  - d) Data formatting

**Answer: b**
2. **Which of the following is an example of a relational database?**
  - a) MongoDB
  - b) MySQL
  - c) Cassandra
  - d) Redis

**Answer: b**
3. **NoSQL databases are primarily designed for:**
  - a) Structured data
  - b) Semi-structured and unstructured data
  - c) Transactional systems only
  - d) Data analytics only

**Answer: b**
4. **Which of the following databases uses a document-oriented model?**
  - a) MySQL
  - b) Oracle
  - c) MongoDB
  - d) PostgreSQL

**Answer: c**
5. **NewSQL databases aim to combine the scalability of NoSQL with:**
  - a) The flexibility of JSON
  - b) The performance of flat files
  - c) The ACID properties of relational databases
  - d) Real-time data analysis

**Answer: c**

6. **What does ACID stand for in database systems?**

- a) Atomicity, Consistency, Isolation, Durability
- b) Accessibility, Clarity, Isolation, Dependability
- c) Availability, Consistency, Integration, Durability
- d) Automation, Clarity, Isolation, Durability

**Answer: a**

7. **In MongoDB, documents are stored in:**

- a) Tables
- b) Columns
- c) Collections
- d) Rows

**Answer: c**

8. **Which of these is NOT a type of NoSQL database?**

- a) Key-Value Store
- b) Document Store
- c) Graph Database
- d) Relational Database

**Answer: d**

9. **Which company originally developed MongoDB?**

- a) IBM
- b) Oracle
- c) 10gen
- d) Microsoft

**Answer: c**

10. **The data in MongoDB is stored in which format?**

- a) JSON
- b) XML
- c) CSV
- d) Binary JSON (BSON)

**Answer: d**

11. **What is the default port for MongoDB?**

- a) 3306
- b) 5432
- c) 27017
- d) 8080

**Answer: c**

12. **Which of the following best describes NewSQL databases?**

- a) Only for large-scale distributed systems
- b) Designed to replace SQL
- c) A blend of SQL and NoSQL features
- d) Built only for document storage

**Answer: c**

13. **What type of database is Cassandra?**

- a) Document-based
- b) Relational
- c) Column-family
- d) Key-value

**Answer: c**

14. **Which component in MongoDB manages the storage and retrieval of data?**

- a) Router
- b) Config server
- c) Shard
- d) Storage engine

**Answer: d**

**15. What command is used to insert a document in a MongoDB collection?**

- a) db.insert()
- b) db.collection.insertOne()
- c) db.add()
- d) db.create()

**Answer: b**

**16. Which type of database is suitable for highly connected data like social networks?**

- a) Relational database
- b) Graph database
- c) Column-family database
- d) Key-value store

**Answer: b**

**17. What is the term for breaking a database into smaller, more manageable pieces?**

- a) Partitioning
- b) Sharding
- c) Indexing
- d) Normalization

**Answer: b**

**18. Which feature allows MongoDB to distribute data across multiple servers?**

- a) Replication
- b) Sharding
- c) Indexing
- d) Aggregation

**Answer: b**

**19. Which MongoDB feature ensures high availability and data redundancy?**

- a) Indexing
- b) Replication
- c) Aggregation pipeline
- d) Partitioning

**Answer: b**

**20. What is the maximum document size in MongoDB?**

- a) 4 MB
- b) 16 MB
- c) 64 MB
- d) 128 MB

**Answer: b**

**21. Which NoSQL database uses tabular format for storage?**

- a) Cassandra
- b) Redis
- c) MongoDB
- d) Neo4j

**Answer: a**

**22. MongoDB stores relationships between data as:**

- a) Tables and joins

- b) Embedded documents and references
- c) Keys and indices
- d) Nodes and edges

**Answer: b**

23. **What is the command to list all databases in MongoDB?**

- a) show dbs
- b) db.list()
- c) display databases
- d) db.show()

**Answer: a**

24. **Which of the following is NOT a trend in database systems?**

- a) Cloud databases
- b) Static schema enforcement
- c) Real-time analytics
- d) Distributed databases

**Answer: b**

25. **In MongoDB, which component handles balancing the data across shards?**

- a) Router
- b) Config server
- c) Shard balancer
- d) Replica set

**Answer: b**

26. **The term "polyglot persistence" refers to:**

- a) Using only one type of database for all purposes
- b) Using different types of databases for different needs
- c) A mix of relational and graph databases only
- d) Data redundancy in distributed systems

**Answer: b**

27. **MongoDB is best suited for:**

- a) Highly transactional systems
- b) Scalable and flexible systems with unstructured data
- c) Financial applications requiring ACID compliance
- d) Static, fixed schema applications

**Answer: b**

28. **Which command in MongoDB creates a new database?**

- a) create db <db\_name>
- b) db.create()
- c) Use <db\_name>
- d) db.add()

**Answer: c**

29. **What is the primary purpose of indexes in MongoDB?**

- a) To enforce relationships
- b) To speed up query execution
- c) To store backup data
- d) To partition the database

**Answer: b**

30. **Which of the following is NOT a core component of MongoDB?**

- a) Shard
- b) Config Server
- c) Router

d) Schema Enforcer

**Answer:** d

### **Questions**

1. Explain the key differences between relational databases and NoSQL databases.
2. Describe the ACID properties and their importance in database management.
3. What are the main components of MongoDB's architecture?
4. Discuss the evolution of database systems from relational to NewSQL and NoSQL.
5. How does sharding work in MongoDB, and why is it important?
6. Compare and contrast the various types of NoSQL databases with examples.
7. Explain the steps to install and set up MongoDB on a local machine.
8. What are the key features of NewSQL databases, and how do they address the limitations of relational and NoSQL databases?