

M.Sc.(IT & CA) Semester - 1 (CBCS) Examination
OCT/NOV-2025 (AS PER SYLLABUS YEAR JUNE-2023)
NoSQL Database: MongoDB (Core (New-23))

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1(A) Answer the Followings (03)
- 1] What is NoSQL ?
 - 2] What is RDBMS ?
 - 3] What type of NoSQL database is MongoDB ?
- Que.1(B) Attempt Any Two (06)
- 1] Explain column-based databases.
 - 2] Explain document-based databases.
 - 3] Explain graph-based data-stores.
 - 4] Explain key-value data-stores.
- Que.1(C) Attempt Any One (05)
- 1] Discuss in detail : Advantages of NoSQL. How is it different from RDBMS ?
 - 2] Describe the importance of MongoDB in detail.
- Que.2(A) Answer the Followings (03)
- 1] Which command is used on console to display all the databases in MongoDB?
 - 2] Which command is used to switch/use a particular database in MongoDB ?
 - 3] Which command is used to show all the collections ?
- Que.2(B) Attempt Any Two (06)
- 1] How to insert document into MongoDB ? Briefly explain with example.
 - 2] Explain find() and findOne() methods with an example.
 - 3] Explain deleteOne() and deleteMany() with suitable example.
 - 4] Explain updateOne() and updateMany() with suitable example.
- Que.2(C) Attempt Any One (05)
- 1] Discuss in detail : Relationships in MongoDB.
 - 2] Describe all the data-types in MongoDB.
- Que.3(A) Answer the Followings (03)
- 1] Is HTTP a stateful or stateless protocol ?
 - 2] Is PHP session stateless or stateful ?
 - 3] HTTP stands for _____.
- Que.3(B) Attempt Any Two (06)
- 1] Explain open() method with an example.
 - 2] Explain read() method with suitable example.
 - 3] Explain write() method with suitable example.
 - 4] Explain destroy() method with suitable example.
- Que.3(C) Attempt Any One (05)
- 1] Write PHP code to apply session in login and log-out page.
 - 2] Discuss PHP's native session with its advantages and limitations.
- Que.4(A) Answer the Followings (03)
- 1] What is the use of \$inc operator ?
 - 2] The concept MapReduce is inspired from which programming paradigm ?
 - 3] What is Map Phase ?

- Que.4(B) Attempt Any Two (06)
- 1] Briefly explain Aggregation in MongoDB.
 - 2] Explain the difference between MapReduce and group().
 - 3] Explain emit() method.
 - 4] Write a note on Real-time Analytics using MongoDB.
- Que.4(C) Attempt Any One (05)
- 1] Discuss in detail the concept of MapReduce.
 - 2] Explain distinct() and count() with suitable examples.
- Que.5(A) Answer the Followings (03)
- 1] What is GridFS ?
 - 2] What is Optimization in MongoDB ?
 - 3] Which command is used to stop MongoDB server instance ?
- Que.5(B) Attempt Any Two (06)
- 1] Write advantages of GridFS over the file-system.
 - 2] Explain Backup and Restore in context of MongoDB.
 - 3] Explain files and chunks in GridFS.
 - 4] Explain Sharding in brief.
- Que.5(C) Attempt Any One (05)
- 1] Write code to store file in GridFS using PHP.
 - 2] What is Replication ? How is it useful ? Discuss in detail.
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