

M.Sc.(IT & CA) Semester - 1 (CBCS) Examination**Nov/Dec - 2022 [NEW COURSE]****NoSQL DATABASE: MongoDB(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

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

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- Question: 1 (A) Answer the following questions. 03
- (1) What is NoSQL?
 - (2) Full form of BASE.
 - (3) MongoDB is Written in _____.
- Question: 1 (B) Answer the following question. (Any Two) 06
- (1) Explain features of NoSQL.
 - (2) Explain DBaaS in NoSQL.
 - (3) Explain Database, collections and document in MongoDB.
 - (4) Explain BASE in details.
- Question: 1 (C) Answer the following question. (Any One) 05
- (1) Describe CAP theorem in NoSQL.
 - (2) Explain Types of NoSQL databases.
- Question: 2 (A) Answer the following questions. 03
- (1) _____ command provides you with a list of all the databases.
 - (2) _____ command is used to create database in MongoDB.
 - (3) Define the syntax of create Collection in MongoDB.
- Question: 2 (B) Answer the following question. (Any Two) 06
- (1) Explain Document database in MongoDB.
 - (2) What is Projection in MongoDB?
 - (3) Difference between RDBMS and MongoDB.
 - (4) Explain upsert() method with example.
- Question: 2 (C) Answer the following question. (Any One) 05
- (1) Describe insert, update and delete Document in MongoDB with Example.
 - (2) Explain \$gte and \$lte in conditional queries with example.
- Question: 3 (A) Answer the following questions. 03
- (1) A session is started with _____ function.
 - (2) Session variables are set with the PHP global variable: _____.
 - (3) Remove all session variables use _____ function.
- Question: 3 (B) Answer the following question. (Any Two) 06
- (1) Difference between files and databases.
 - (2) What is "GC" in SessionManager?
 - (3) How does Session works?
 - (4) Create collection in php with example.
- Question: 3 (C) Answer the following question. (Any One) 05
- (1) Explain session_set_save_handler() function.
 - (2) Explain Insert() and find() in MongoDB database with php.

- Question: 4 (A) Answer the following questions. 03
- (1) For the aggregation in MongoDB you should use _____ method.
 - (2) The _____ phase breakdown the task into smaller subtask in MapReduce.
 - (3) MongoDB uses _____ command for Map-Reduce operations.
- Question: 4 (B) Answer the following question. (Any Two) 06
- (1) What is Aggregation?
 - (2) Explain Query and Sort fields in MapReduce().
 - (3) What is MapReduce?
 - (4) Explain Distinct() with example.
- Question: 4 (C) Answer the following question. (Any One) 05
- (1) Explain Map() and Reduce() function With examples.
 - (2) Explain following Expressions using aggregation with examples.
 1. \$sum 2. \$avg 3. \$max
 4. \$push 5. \$first
- Question: 5 (A) Answer the following questions. 03
- (1) The default size of chunks in GridFS is _____.
 - (2) We store an mp3 file in GridFS using the _____ command.
 - (3) Full form of TTL is _____.
- Question: 5 (B) Answer the following question. (Any Two) 06
- (1) What is GridFS?
 - (2) Explain optimization.
 - (3) Explain any Five Administration Commands.
 - (4) Explain mongodump and mongorestore commands.
- Question: 5 (C) Answer the following question. (Any One) 05
- (1) Explain Sharding in details.
 - (2) Explain Replication with example.