



MG-003-1081003

Seat No. _____

M. Sc. (I.T.) (Sem. I) (CBCS) Examination

January – 2018

CS - 03 : NoSQL Database : MongoDB

Faculty Code : 003

Subject Code : 1081003

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

Instruction : Write answers of all the questions in main answer-sheet.

- 1 (A) Attempt the following objective questions : 4
- (1) What is collection?
 - (2) Give the full form of NoSQL.
 - (3) MongoDB is _____ type of NOSQL database.
 - (4) What is database-as-a-service?
- (B) Attempt any **one** of the following : 2
- (1) List out major types of NoSQL database.
 - (2) Explain history of NoSQL.
- (C) Attempt any **one** of the following : 3
- (1) List out the steps for installing php driver for mongodb on windows platform.
 - (2) Define objective of NoSQL.
- (D) Attempt any **one** of the following : 5
- (1) Explain concept of data modeling and working with data.
 - (2) Explain collection and document in detail.
- 2 (A) Attempt the following objective questions : 4
- (1) Which command displays the list of all databases?
 - (2) _____ stores the number of documents in MongoDB.
 - (3) db.collection.remove({}) is used for _____.
 - (4) What is the default port number of MongoDB?

- (B) Attempt any **one** of the following : 2
 (1) Explain limit and skip function.
 (2) Explain create Collection() method.
- (C) Attempt any **one** of the following : 3
 (1) Explain sort() method with example.
 (2) Compare Relational database with NoSQL database.
- (D) Attempt any **one** of the following : 5
 (1) Explain insert() and update() with example.
 (2) Explain find() and pretty() methods with example and output.
- 3** (A) Attempt the following objective questions : 4
 (1) _____ method is used to start a session.
 (2) What is session?
 (3) Use of \$_SESSION[].
 (4) Is HTTP stateless protocol?
- (B) Attempt any **one** of the following : 2
 (1) What is HTTP session?
 (2) Explain concept of session management.
- (C) Attempt any **one** of the following : 3
 (1) Explain session manager class.
 (2) Briefly explain session_set_save handler() function.
- (D) Attempt any **one** of the following : 5
 (1) Explain php native session handling with example.
 (2) Write a php program to create login application with session using MongoDB.
- 4** (A) Attempt the following objective questions : 4
 (1) What is reduce phase?
 (2) The _____ phase breakdown the task into smaller subtasks and execute them to produce intermediate results.
 (3) group() method can not be applied on a key having more than _____ distinct values.
 (4) What do you mean by web analytics?
- (B) Attempt any **one** of the following : 2
 (1) What is real time analytics? Explain it.
 (2) What is MapReduce? Explain it.

- (C) Attempt any **one** of the following : 3
- (1) Explain concept of extracting analytics data with mapreduce.
 - (2) Differentiate MapReduce and group().
- (D) Attempt any **one** of the following : 5
- (1) Explain db.collection.distinct() and db.collection.count() with example.
 - (2) Write a php code for count number of employee per department with using mapreduce in mongodb.
- 5** (A) Attempt the following objective questions : 4
- (1) In replica set, minimum _____ nodes are required.
 - (2) _____ refers to the process of splitting data up and storing different portions of the data on different machines.
 - (3) By default GridFS limits chunk size to _____ kb.
 - (4) What is Grid?
- (B) Attempt any **one** of the following : 2
- (1) Explain files and chunks collection.
 - (2) What is Replication? Explain it.
- (C) Attempt any **one** of the following : 3
- (1) Define explain() method.
 - (2) Write a code for reading files from GridFS.
- (D) Attempt any **one** of the following : 5
- (1) Write a program for storing files in GridFS
 - (2) Explain concept of sharding in detail.
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