M. Sc. I. T. (Sem. I) (CBCS) (W.E.F. 2016) Examination

August - 2022

CS-03 : NoSQL Database : Mongo DB

Faculty Code : 003
Subject Code : 1081003

Time : **2½** Hours]   [Total Marks : **70**

Instruction :   Write answers any five questions.

1   (a)   Answer the following :   **4**
          (1)   Give the full form of NoSQL.
          (2)   In big data 3V stands for _____, _____, _____.
          (3)   MongoDB NoSQL require schema. True or False.
          (4)   _____ means multiple copy of data.

     (b)   Explain history of NoSQL.   **2**
     (c)   Give the difference between SQL and NoSQL.   **3**
     (d)   Explain database, collection and document.   **5**

2   (a)   Answer the following :   **4**
          (1)   Large scale data or huge amount of data with 3V concept is known as _____.
          (2)   MongoDB Collection in RDBMS is known as ?
          (3)   _____ command is used for starting mongoDB server.
          (4)   What is the default port address of the MongoDB?

     (b)   Explain database as a service.   **2**
     (c)   Write steps for installing php driver for mongoDB on windows platform.   **3**
     (d)   Explain types of NoSQL.   **5**

3   (a)   Answer the following :   **4**
          (1)   JSON stands for _____.
          (2)   What command displays the list of all databases?
          (3)   Which command is used to show the collections of current database?
          (4)   Which method is used to display document with proper format?

(b) Explain find() and pretty() with example. **2**

(c) Explain sort() method. **3**

(d) Explain insert() and update() with example. **5**

4 (a) Answer the following : **4**

    (1) BSON stands for _____.

    (2) In mongoDB Cursor means a pointer that points to a document.
       True or False

    (3) MongoDB support reference document.
       True or False

    (4) MongoDB require fix structure like RDBMS.
       True or False

(b) Explain relationship between documents. **2**

(c) Explain limit and skip function. **3**

(d) Explain delete() and update() with example. **5**

5 (a) Answer the following : **4**

    (1) HTTP is stateless protocol.
       True or False

    (2) _____ method is used to start a session.

    (3) Amazon EC2 stands for _____.

    (4) What is the use of session_destroy()?

(b) Write a note on session_set_save_handler(). **2**

(c) Explain native PHP session handling. **3**

(d) Explain session manager. **5**

6 (a) Answer the following : **4**

    (1) URI stands for _____.

    (2) _____ method is used to perform session data GC(garbage collection).

    (3) Session_unset() is used for _____.

    (4) DBaaS stands for _____.

(b) What is session? **2**

(c) What is HTTP session? **3**

(d) Write a code to use session in login and logout page. **5**

7 (a) Answer the following :   **4**
  (1) Which function is used for aggregation in MongoDB?
  (2) An aggregation pipeline consists of one or more stages that process documents.
      True or False
  (3) MR stands for _____.
  (4) Mongosh stands for _____.

  (b) What is MapReduce?   **2**
  (c) Explain count() with example.   **3**
  (d) Explain aggregation pipeline.   **5**

8 (a) Answer the following :   **4**
  (1) What is the use of $_SESSION[]?
  (2) TCP/IP stands for _____.
  (3) quit() is used for _____.
  (4) What is session store?

  (b) Explain aggregation expressions. (any 3)   **2**
  (c) Explain group() with example.   **3**
  (d) Explain MapReduce with example.   **5**

9 (a) Answer the following :   **4**
  (1) GridFS by default uses two collections _____ and _____ to store the file's metadata and the chunks.
  (2) In MongoDB, use _____ for storing files larger than 16 MB.
  (3) A _____ is a group of mongod instances that maintain the same data set.
  (4) Vertical Scaling involves increasing the capacity of a single server. True or False

  (b) What is Sharding?   **2**
  (c) Explain Replication.   **3**
  (d) Explain GridFS and its advantages.   **5**

10 (a) Answer the following : **4**

      (1) _____ puts binary data to the grid.

      (2) _____ is maximum size of chunk.

      (3) Gridfs by default have _____ collection.

      (4) Gridfs is used in fail over and scale out situation. True or False

  (b) Explain files and chunks collection. **2**

  (c) Write a program for reading files from GridFS. **3**

  (d) Explain sharding in detail. **5**

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