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Reg. No: .....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Degree Examination, April 2022

MCS4E03 e - Fundamentals of Big Data

(2019 Admission onwards)

Time: 3 hours

Max. Weightage : 30

**Section A**

**Answer any four questions. Each carries 2 weightage**

1. Write two index related functions in MongoDB.
2. What is a key- value pair database? Give an example.
3. What is a collection in MongoDB? Name important types of collections.
4. Explain the two methods to integrate data types into a big data environment.
5. Define the term Big Data. Explain its features.
6. Explain the use of \$inc, \$ set and \$unset.
7. Explain dump and store .

(4 x 2 = 8 weightage)

**Section B**

**Answer any four questions. Each carries 3 weightage**

8. List and explain the four dimensions of Big Data.
9. Explain the role distributed computing in Big Data Management.
10. Explain the features of NoSQL databases.
11. List and explain important data types in MongoDB.
12. What are wrapper classes? Explain Map wrapper classes in Hadoop.
13. With example, explain the MapReduce paradigm for programming.
14. Write notes on            a) Oozie            b) Lucene            c) Avro.

(4 x 3 = 12 weightage)

**Section C**

**Answer any two questions. Each carries 5 weightage**

15. Explain the text analytics tool for Big Data.
16. Give a detailed account on structured, semi structured and un structured data and their role in Big Data analysis.
17. What is HDFS? List and explain important components of HDFS.
18. Explain the distinguishing features of MongoDB. With the help of an example, explain the structure of a MongoDB database.

( 2 x 5 = 10 weightage)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fourth Semester M.Sc Degree Examination, April 2022

MCS4E04d - Storage Area Networks

(2019 Admission onwards)

Time: 3 hours

Max. Weightage : 30

**Section A****Answer any *four* questions. Each carries 2 weightage**

1. What are the basic networking concepts?
2. What is Storage Area Network? What makes a good SAN?
3. Describe different types of I/O Channels.
4. List out the Fabric OS services.
5. Write about Network Attached Storage.
6. Explain SNMP and TELNET.
7. Write about the future of SAN.

**(4 x 2 = 8 weightage)****Section B****Answer any *four* questions. Each carries 3 weightage**

8. List and explain the common networking and internetworking devices.
9. Explain the MAC Standards.
10. Differentiate SAN and NAS.
11. Explain Classes of Service of Fibre Channel.
12. What are the four major components of Storage Area Network? Explain.
13. Write about Fibre Channel Switch and Host Bus adaptor.
14. Explain the In band and Out of band network management functions.

**(4 x 3 = 12 weightage)****Section C****Answer any *two* questions. Each carries 5 weightage**

15. Explain the storage management issues and tasks.
16. Explain the different RAID levels.
17. Give detailed account on the layers of Fibre Channel.
18. Explain the iSCSI Technology.

**(2 x 5 = 10 weightage)**