

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fourth Semester M.Sc Computer Science Degree Examination, April 2025

MCS4E04 D – Storage Area Networks

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

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

1. Differentiate Server centric and Storage centric architectures.
2. Explain the different ports used in the fibre channel.
3. Describe different types of I/O Channels.
4. Differentiate multi-mode optical cable and single-mode optical cable
5. Explain the Fibre Channel topologies
6. Differentiate SAN and NAS.
7. Write about Instant Copying.

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

8. Explain Intelligent Disk Subsystems
9. Explain the Challenges of Network Storage
10. Explain the different networking and internetworking devices
11. Explain the different Classes of Service (CoS) of Fiber Channel
12. Differentiate Stripping and Mirroring
13. Explain the Storage Management tasks
14. Explain the different Security Guidelines in SAN implementation

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

15. Explain the SAN design considerations.
16. Explain the In band and Out of band network management functions.
17. Write about the Layers of the Fibre Channel.
18. Explain the storage management issues and tasks.

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MCS4E03 e – Fundamentals of Big Data

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

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

1. Define the term Big Data. Explain its features
2. What is semistructured data? List important sources of semi structured data in Big Data environment
3. Define monetised Bigdata analysis
4. List out different types of NoSQL databases
5. Illustrate the function of reducer class in Hadoop
6. Explain the use of \$slice,\$size and \$exists
7. Give the procedure to create a table for UFO data

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

8. List and explain the four dimensions of Big Data
9. Explain the role of content management systems in Big Data Management
10. Describe the characteristics of a Big Data analysis framework
11. List and explain the features of document and columnar databases
12. What are wrapper classes? Explain primitive wrapper classes in Hadoop
13. Explain the features of HDFS architecture
14. Write notes on a) Flume b)Avro

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

15. With a diagram, explain the Big Data stack
16. Write a detailed note on text analytics
17. With the help of a diagram, explain components of Hadoop
18. What is MongoDB?What is its importance in Bigdata analysis? With the help of an example, explain the structure of a MongoDB database.