Reg. No. :

Question Paper Code: 99242

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Elective

Computer Science and Engineering

19UCS942 -BIG DATA ANALYTICS

(Régulations 2019)

Duration: Three hours   Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1. What is Big Data? Why Big Data?   CO1-U

2. DFS can handle a large volume of data then why do we need Hadoop   CO1-U
    framework?

3. How is the DataNode failure handled by NameNode?   CO1-U

4. What is the fundamental difference between a MapReduce Split and a HDFS CO1-U
    block?

5. How to Create a Database in MongoDB?   CO1-U

6   List out the any 4 advantages of MongoDB.   CO2- App

7   How to Install the MongoDB on Windows?   CO1-U

8   What are the Benefits of big data   CO1-U

9   How big data analysis helps businesses increase their revenue? Give   CO2- App
    example.

10 What are the main components of MapReduce Job?   CO2- U

PART – B (5 x 16= 80Marks)

11. (a) Why is big data important and describe some of the big data use   CO1-U   (16)
          cases

                                    Or

     (b) Briefly explain the Components of hadoop and application   CO1-U   (16)
          development in Hadoop

12. (a) Imagine that you are uploading a file of 500MB into HDFS.100MB of data is successfully uploaded into HDFS and another client wants to read the uploaded data while the upload is still in progress. What will happen in such a scenario, will the 100 MB of data that is uploaded will it be displayed?   CO2-App   (16)

Or

(b) If 8TB is the available disk space per node (10 disks with 1 TB, 2 disk for operating system etc. were excluded.)and assuming initial data size is 600 TB. How will you estimate the number of data nodes (n)?   CO2-App   (16)

13. (a) Outline the steps involved to install and configure the MongoDB in Ubundu.   CO1-U   (16)

Or

(b) Explain in details about the CRUD Operations with examples.   CO1-U   (16)

14. (a) What are the data types in MongoDB? Explain the process of Sharding.   CO1-U   (16)

Or

(b) What is the difference between MongoDB and MySQL? Explain the use of MongoDB?   CO1-U   (16)

15. (a) To write a query for insert the document in MongoDB Collection and pass an array of documents into their insert() methods.   CO2-App   (16)

Or

(b) To creates a new collection named empDetails and inserts a document using the insertOne() method and also inserts a multiple document using the insertMany().   CO2-App   (16)

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