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Question Paper Code	13073
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M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2024

Second Semester

M.E. - Computer Science and Engineering

20PCSPC204 - BIG DATA ANALYTICS

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

	Marks	K- Level	CO
1. Why big data is important?	2	K1	CO1
2. How is traditional BI environment different from the big data environment?	2	K1	CO1
3. What is your understanding of “Big Data Analytics”?	2	K1	CO2
4. State the advantages of Shared Nothing Architecture.	2	K1	CO2
5. What is the difference between replication and sharding?	2	K1	CO3
6. List the major challenges of distributed computing.	2	K1	CO3
7. List out the various methods of clustering.	2	K1	CO4
8. How do you explain the similarity in clustering?	2	K1	CO4
9. List the differences between SQL and MongoDB.	2	K1	CO5
10. What are the main features of Jasper soft?	2	K1	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Explain in detail about the classification of data.	13	K2	CO1
OR			
b) Outline a typical Data warehouse and Hadoop Environment.	13	K2	CO1
12. a) Explain the terminologies used in big data environment.	13	K2	CO2
OR			
b) Classify the big data analytics and explain in detail.	13	K2	CO2
13. a) With a neat diagram, explain the components of HDFS.	13	K2	CO3
OR			
b) Discuss a MapReduce program to implement word count.	13	K2	CO3
14. a) Examine in detail about the K-means clustering algorithm with an example.	13	K4	CO4

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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OR

b) Analyze the working of SVM with an example. 13 K4 CO4

15. a) Illustrate CRUD operations in MongoDB with examples. 13 K2 CO5

OR

b) Interpret how JasperReport is prepared using Jaspersoft. 13 K2 CO5

PART - C (1 × 15 = 15 Marks)

16. a) Explain Apache Hbase architecture in detail. 15 K5 CO6

OR

b) Explain the various Interaction Techniques in detail. 15 K5 CO6