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MBA Semester- 4th Examination, 2026
MASTER OF BUSINESS ADMINISTRATION
PAPER: MBA 409A
(BIG DATA AND SQL)

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Full Marks: 80 **Time: 3 Hours**

The figures in the right-hand margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Group-A

Answer any **EIGHT** of the following questions: 8×5=40

1. What is Big Data? Explain its major characteristics. 2+3
2. Discuss the advantages and disadvantages of Big Data.
3. Differentiate between structured and unstructured data with suitable examples.
4. Explain the applications of Big Data in Marketing and Finance.
5. Discuss the role of Big Data in Human Resource Management with suitable examples.
6. Explain with suitable examples, the aggregate function in SQL.
7. What are linked servers in SQL? Explain their importance. 2+3
8. Explain the major features and advantages of Cloud Computing.
9. What is NoSQL? Explain its major characteristics and applications. 2+3
10. What is the Data Visualization Layer in Big Data architecture? Explain its importance.
11. What is an RDD in Apache Spark? Explain its important characteristics. 2+3
12. Explain the concept of Lazy DAG Execution Model in Apache Spark.

Group-B

Answer any **FOUR** of the following questions: 4×10=40

13. Explain the evolution of Big Data in detail. Discuss the career-related knowledge and skills required for Big Data professionals. 4+6
14. Discuss the role of Big Data in Production and Supply Chain Management. Explain how Big Data can improve operational efficiency and decision-making in these areas. 5+5

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15. Explain the advanced SQL concepts covered in Big Data Analytics. Discuss handling multiple rows for a single record, consolidating multiple results, caching views, caching errors, and Base64 encoding and decoding. 4+6
16. Explain Hadoop architecture and its functioning in detail. Discuss its major components and applications in Big Data processing. 5+5
17. Explain the Data Ingestion Layer, Data Collector Layer, Data Processing Layer, and Data Storage Layer of Big Data architecture.
18. Discuss partitioning, distributed processing, and the role of RDDs in large-scale data processing. 10

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