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Paper ID: BSD502

Course Code: BSDB33502T

**Examination (January - 2024)**  
**Bachelor of Science (B.Sc. – Data Science)**  
**Semester - V**  
**Big Data Management**

**Time Allowed: 3 Hours**

**Max. Marks: 70**

**Instructions for the Students**

1. Attempt any 2 questions out of 4 from Section – A (Each question carries 10 marks)
2. Attempt any 2 questions out of 4 from Section – B (Each question carries 10 marks)
3. Attempt any 10 questions out of 15 from Section – C (Each question carries 03 marks)

**Section - A2\*10=20**

- Q1.** Explain Rational Database Management System in detail with suitable example.
- Q2.** Discuss the following in detail:  
Structured Data  
Unstructured Data  
Semi Structured Data
- Q3.** What are the five Vs of big data?
- Q4.** What do you mean by data processing? Discuss the major steps of data processing.

**Section - B2\*10=20**

- Q5.** What is streaming data? Discuss the benefits of streaming data.
- Q6.** What do you mean by No-SQL Databases? Discuss the advantages of NoSQL in detail.
- Q7.** What do you mean by MongoDB? Discuss the features of MongoDB.
- Q8.** Discuss basic data analytic methods in detail.

**Section - C10\*3=30**

**Q9. Short Answer Questions (Attempt any 10 questions)**

- a) What do you mean by big data?
- b) How can big data analytics benefit business?
- c) What do you mean by data wrangling?
- d) What are the challenges of big data management?
- e) Name a few big data processing techniques.
- f) Discuss stream processing.
- g) What are the challenges in working with streaming data
- h) What is streaming in API?
- i) Differentiate between SQL and NoSQL.
- j) Discuss the elements of the MongoDB Architecture
- k) What is HBase used for?
- l) What do you mean by blogs?
- m) Explain the big data management services?
- n) Can HBase run without Hadoop?
- o) What are the uses of NoSQL?