

**23BDS403**  
**UG PROGRAM (4 YEARS HONOURS) WITH SINGLE MAJOR**  
**AT THE END OF FOURTH SEMESTER**  
**DATA SCIENCE - INTRODUCTION TO SQL & ADVANCED TABLEAU**  
**(COMMON FOR B.Sc DATA SCIENCE & B.CA DATA SCIENCE)**  
**(B.Sc HONOURS-MAJOR)**  
**(w.e.f. Admitted Batch 2023-24)**

**Time: 3 Hours**

**Maximum: 70 marks**

**SECTION – A**

**Answer any Five questions.**

**5x4=20**

1. What is data and information?
2. Explain various data types in SQL.
3. Write about calculated fields.
4. Describe dashboard interactivity.
5. What are large datasets?
6. What is relationship degree and its classification?
7. Discuss set operations in SQL.
8. What are binning values?

**SECTION – B**

**Answer ALL questions.**

**5x10=50**

9. (a) Explain in detail about various keys in DBMS.

**(Or)**

(b) Explain the building blocks of an entity relationship diagram.

10. (a) Explain various commands in SQL.

**(Or)**

(b) Write in detail about sub queries and correlated queries with example.

11. (a) Discuss the various charts in data visualization.

**(Or)**

(b) Explain various levels of calculations.

12. (a) Discuss various dashboard design principles.

**(Or)**

(b) How do you create visualizations with Tableau?

13. (a) Describe the advanced tableau parameters.

**(Or)**

(b) Write about integration of tableau with R programming.