

B.Sc. (Data Science) (NEP) Semester-II
BSCDS21 - Database Management System

P. Pages : 1

Time : Three Hours



GUG/W/24/15261

Max. Marks : 80

1. i) Explain the significance of Database Management System. 8
- ii) Write a note on Client-Server Architecture. 8
- OR
- i) Explain External, Conceptual and Internal level of architecture. 8
- ii) Describe types of DBMS with example. 8
2. i) Explain ER-model with an example. 8
- ii) Explain the term Normalization and Functional Dependency with an example. 8
- OR
- i) Describe creation of Database using SQL. 8
- ii) Differentiate 1NF and 2NF using example. 8
3. i) Discuss advantages and disadvantages of NoSQL technology. 8
- ii) Explain properties of key-value store. 8
- OR
- i) Explain key-value database with example. 8
- ii) Describe the types of NoSQL Databases. 8
4. i) Explain the concepts and use-cases of columnar database. 8
- ii) Write a note on Document databases. 8
- OR
- i) Explain characteristics of a columnar database. 8
- Describe procedure of implementation of document database using MongoDB. 8
5. i) Explain properties of graph model. 8
- ii) Write a note on future databases. 8
- OR
- i) Discuss Reliability, maintainability and scalability of information systems. 8
- ii) Explain graph data structure. 8
