SECTION-A

1. (a) Define the term DBMS. In how many groups, one can classify the users of a database system ?

(b) Explain three – tuer architecture of a database system.

2. (a) Explain the concept of Generalization and Specialization using suitable example.

(b) Explain the use of Primary Key, Foreign Key and Component Key using suitable example.

SECTION-B

3. Illustrate the fact that BCNF is strictly stronger than 3NF.

4. What is Concurrency Control ? What are its potential problems ? Explain the concept of Two Phase Locking Protocol in CC.

SECTION-C

5. Differentiate between DDL, DML and DCL using suitable examples.

6. What do you mean by Database Triggers ? Discuss its different types. Write the syntax for creating a Database Trigger using different parameters.

SECTION-D

7. Explain the concept of Big Data. How it is used for analysis ? Discuss giving suitable example.

8. How NoSQL is related with SQL ? Discuss different features of NoSQL using examples.