

2013*Time: 3 hours**Full Marks: 80*

Candidates are required to give their answers in their own words as far as practicable

*The questions are equal value.
Answer any **five** questions in which
Q.No. 1 is compulsory.*

1. Indicate the correct answer of the following:

- (a) Which of the following is a database elements?
 - (i) Data
 - (ii) Relationship
 - (iii) Constraints and schema
 - (iv) All of the above
- (b) SQL stands for:
 - (i) Scalable Query Language
 - (ii) Structured Query Language
 - (iii) Standard Query Language
 - (iv) None of the above
- (c) What is the RDBMS terminology for a table?
 - (i) Tuple
 - (ii) Relation
 - (iii) Attribute
 - (iv) Domain
- (d) A table can have only one:
 - (i) Candidate key
 - (ii) Primary key
 - (iii) Alternate key
 - (iv) All of the above
- (e) Which database level is the one closest to the users?
 - (i) Internal
 - (ii) Physical
 - (iii) External

- (iv) Conceptual
 - (f) Which of the following is an attributes that hols multiple values for a single entity?
 - (i) Simple
 - (ii) Composite
 - (iii) Derived
 - (iv) Multi-valued
 - (g) When all the columns in a table describe and depend upon the primary key, the table is said to satisfy the normal form.
 - (i) First
 - (ii) Second
 - (iii) Third
 - (iv) Fourth
 - (h) Which of the following is not a data definition language statement?
 - (i) CREATE
 - (ii) ALTER
 - (iii) DROP
 - (iv) SELECT
2. Explain the advantages of using Database System over conventional file processing system.
 3. What is a database schema? Differentiate between internal and external schema. Describe the organization of a database.
 4. What is a relation database? What are the advantages and disadvantages of a relational database system?
 5. Explain Codd's rule for relational database systems.
 6. What do you mean by database design? Explain the database design process.
 7. What is a Cartesian Product? How is it represented? Explain with an example.
 8. What are SQL DDL commands? Explain with examples.
 9. What are the different arithmetic operators in SQL? Explain with examples.
 10. What is database recovery? What are the recovery facilities provided by the DBMS?