

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech/Int. Btech Winter 2022-23 Examination

Semester: 3/7

Date: 03/10/2022

Subject Code: 203105251/03105254

Time: 02:00 pm to 04:30 pm

Subject Name: Database Management System

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (Fill in the blanks, one word answer, MCQ-not more than Five in case (15) of MCQ) (All are compulsory) (Each of one mark)

1. SQL stands for _____
2. The term attribute refers to a _____ of a table.
A. Record B. Column C. Tuple D. Key
3. To remove a relation from an SQL database, we use the _____ command.
4. Full form of DDL, DML
5. Define Weak Entity Set
6. Full form of IDS.
7. No. of Primary key possible in a relation is / are
(a) at least one (b) exactly one (c) more than one (d) at most one
8. All Super Keys are Candidate Keys
(a) True (b) False
9. Which of the following is not a type of database?
a) Hierarchical
b) Network
c) Distributed
d) Decentralized
10. Which one of the following attribute can be taken as a primary key?
a) Name
b) Street
c) Id
d) Department
11. An attribute in a relation is a foreign key if the _____ key from one relation is used as an attribute in that relation.
a) Candidate
b) Primary
c) Super
d) Sub
12. The _____ clause is used to list the attributes desired in the result of a query.
a) Where
b) Select
c) From
d) Distinct
13. The union operation is represented by
a) \cap
b) U
c) -
d) *
14. The intersection operator is used to get the _____ tuples.
a) Different
b) Common
c) All
d) Repeating

15. The _____ is essentially used to search for patterns in target string.
- a) Like Predicate
 - b) Null Predicate
 - c) In Predicate
 - d) Out Predicate
- Q.2** Answer the following questions. (Attempt any three) **(15)**
- A) What are different types of joins in SQL?
 - B) Why is the use of DBMS recommended? Explain by listing some of its major advantages
 - C) Explain Lock Based Protocol.
 - D) Explain 3 different types of languages that are available in the DBMS (DDL,DML,DCL)
- Q.3** A) Explain the concept of ACID properties in DBMS? **(07)**
- B) What do you understand by functional dependency and transitive dependency in DBMS? **(08)**
- OR**
- B) Explain Query Optimization Process. **(08)**
- Q.4** A) What is normalization and what are the different types of normalization? **(07)**
- OR**
- A) Explain KDD Process in detail. **(07)**
- B) Write Short-note: Serializability **(08)**