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SUBJECT CODE NO:- 2109
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y Sem. IV
Examination March/April-2022 (To Be Held In June/July-2022)
Computer Science CS012
Database Management and System Using SQL

[Time: 1:53 Hours]

[Max.Marks:50]

- Please check whether you have got the right question paper.
- N.B
- i) Attempt all questions.
 - ii) Illustrate your answer with suitable labelled diagram.
- Q.1
- a) Write any eight applications of DBMS. 10
 - b) Define Data and write the advantages and disadvantages of DBMS. 10
- OR
- a) What is meant by E – R model? Explain with example. 10
 - b) Differentiate between first Normal form and Second Normal form. 10
- Q.2
- a) What do you mean by cardinality? How it represent mapping cardinality. 10
 - b) Define the following operations of relational algebra & give an example each 10
 - i) The Division operation
 - ii) The natural join operation
- OR
- Write short note on (any four) 20
- i) Database schema
 - ii) SQL Plus Worksheet
 - iii) Data models
 - iv) Oracle database structure
 - v) E-R model
 - vi) Second Normal form.
- Q.3 Multiple choice questions 10
1. A Database Management System (DBMS) is _____
 - a) Collection of interrelated data.
 - b) Collection of programs to access data
 - c) Collection of data describing one particular enterprise
 - d) All of these
 2. In an Entity – Relationship Diagram rectangle represents _____
 - a) Entity sets
 - b) attributes
 - c) database
 - d) tables

3. Which of the following is a data model?
 - a) Entity – Relationship model
 - b) Relational data model
 - c) Object – Based data model
 - d) All of these

4. Which of the following is not Unary operation?
 - a) Select
 - b) Project
 - c) Rename
 - d) Union

5. Who proposed the relational model?
 - a) Bill Gates
 - b) E.F. Codd
 - c) Herman Hollerith
 - d) Charles Babbage

6. Which of the following is not a level of data abstraction?
 - a) Physical level
 - b) Critical level
 - c) Logical level
 - d) View level

7. Which of the following is the structure of the database?
 - a) Table
 - b) Schema
 - c) Relation
 - d) none of these

8. In relational algebra relations are termed as _____
 - a) Tuples
 - b) Attributes
 - c) tables
 - d) Rows

9. Cartesian product in relational algebra is _____
 - a) A unary operator
 - b) A Binary operator
 - c) A Ternary operator
 - d) Not defined

10. In an E – R diagram attributes are represented by _____
 - a) rectangle
 - b) square
 - c) ellipse
 - d) triangle