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**SUBJECT CODE NO:- B-2109**  
**FACULTY OF SCIENCE & TECHNOLOGY**  
**B.Sc. S.Y. (Sem-IV)**  
**Examination November/December- 2022**  
**Computer Science CS012**  
**Database Management and System Using SQL**

[Time: 1:30 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) Explain in detail the abstraction and data integration. 10
  - b) Explain three level of architecture of a DBMS. 10
- OR
- a) State and explain components of DBMS. 10
  - b) Explain different data models in DBMS. 10
- Q.2
- a) What is difference between select and project operation? Give example. 10
  - b) What is SQL? Write the versions of oracles. 10
- OR
- Write short notes on (any four) 20
- i) Importance of Data model.
  - ii) Data Manipulation Language (DML)
  - iii) E-R data model.
  - iv) Third Normal Form
  - v) Advantages of DBMS.
  - vi) Mapping Cardinality

## Q.3 Multiple choice questions.

- 01) \_\_\_\_\_ database level is closest to the users.
- External
  - Internal
  - physical
  - conceptual
- 02) In E-R diagram relationship type is represented by \_\_\_\_\_
- ellipse
  - dashed ellipse
  - rectangle
  - diamond.
- 03) A table joined with itself is called \_\_\_\_\_
- join
  - self join
  - outer join
  - Equi join
- 04) A primary key if combined with a foreign key creates \_\_\_\_\_
- Parent-child relationship between the tables that connect them.
  - many to many relationship between the tables that connect them.
  - network model between the tables that connect them
  - none of the above.
- 05) In the architecture of a database system external level is the \_\_\_\_\_
- physical level
  - logical level
  - conceptual level
  - view level

06) \_\_\_\_\_ is record based logical model.

- a) network model
- b) object oriented model
- c) E-R model
- d) none of these

07) The full form of DDL is \_\_\_\_\_

- a) Dynamic Data Language.
- b) Detailed Data Language
- c) Data Definition Language
- d) Data Derivation Language.

08) In the relational models, cardinality is termed as \_\_\_\_\_

- a) number of tuples
- b) number of attributes
- c) number of tables
- d) number of constraints

09) A functional dependency is a relationship between or among \_\_\_\_\_.

- a) tables
- b) rows
- c) relations
- d) attributes

10) The operation of eliminating columns in a table done by \_\_\_\_\_ operation.

- a) restrict
- b) project
- c) union
- d) divide