

1. In the relational model, cardinality is termed as:

- (A) A number of tuples.
- (B) A number of attributes.
- (C) A number of tables.
- (D) A number of constraints.

Ans: A

2. Relational calculus is a

- (A) Procedural language.
- (B) Non- Procedural language.
- (C) Data definition language.
- (D) High-level language.

Ans: B

3. The view of total database content is

- (A) Conceptual view.
- (B) Internal view.
- (C) External view.
- (D) Physical View.

Ans: A

4. Cartesian product in relational algebra is

- (A) a Unary operator.
- (B) a Binary operator.
- (C) a Ternary operator.
- (D) not defined.

Ans: B

5. DML is provided for

- (A) Description of the logical structure of a database.
- (B) The addition of new structures in the database system.
- (C) Manipulation & processing of the database.
- (D) Definition of a physical structure of the database system.

Ans: C

6. 'AS' clause is used in SQL for

- (A) Selection operation.
- (B) Rename operation.
- (C) Join operation.
- (D) Projection operation.

Ans: B

7. ODBC stands for

- (A) Object Database Connectivity.
- (B) Oral Database Connectivity.
- (C) Oracle Database Connectivity.
- (D) Open Database Connectivity.

Ans: D

Q.8 Architecture of the database can be viewed as

- (A) two levels.
- (B) four levels.
- (C) three levels.
- (D) one level.

Ans: C

Q.9 In a relational model, relations are termed as

- (A) Tuples.
- (B) Attributes
- (C) Tables.
- (D) Rows.

Ans: C

Q.10 The database schema is written in

- (A) HLL
- (B) DML
- (C) DDL
- (D) DCL

Ans: C

Q.11 In the architecture of a database system external level is the

- (A) physical level.
- (B) logical level.
- (C) conceptual level
- (D) view level.

Ans: D

Q.12 An entity set that does not have sufficient attributes to form a primary key is a

- (A) strong entity set.
- (B) weak entity set.
- (C) simple entity set.
- (D) primary entity set.

Ans: B

Q.13 In Hierarchical model records are organised as

- (A) Graph.
- (B) List.
- (C) Links.
- (D) Tree.

Ans: D

Q.14 In an E-R diagram attributes are represented by

- (A) rectangle.

- (B) square.
- (C) ellipse.
- (D) triangle.

Ans: C

Q.15 In case of entity integrity, the primary key maybe

- (A) not Null
- (B) Null
- (C) both Null & not Null.
- (D) any value.

Ans: A

Q.16 In tuple relational calculus  $P1 \bowtie P2$  is equivalent to

- (A)  $\neg P1 \cup P2$
- (B)  $P1 \cup P2$
- (C)  $P1 \cap P2$
- (D)  $P1 \cap \neg P2$

Ans: A

Q.17 The language used in application programs to request data from the DBMS is referred to as the

- (A) DML
- (B) DDL
- (C) VDL
- (D) SDL

Ans: A

Q.18 A logical schema

- (A) is the entire database.
- (B) is a standard way of organising information into accessible parts.
- (C) describes how data is actually stored on disk.
- (D) both (A) and (C)

Ans: A

Q.19 Related fields in a database are grouped to form a

- (A) data file.
- (B) data record.
- (C) menu.
- (D) bank.

Ans: B

Q.20 The database environment has all of the following components except:

- (A) users.
- (B) separate files.
- (C) database.
- (D) database administrator.

Ans: A.

Set:- 2 MCQ on DBMS.

Q.21 The language which has recently become the defacto standard for interfacing application programs with relational database system is

- (A) Oracle.
- (B) SQL.
- (C) DBase.
- (D) 4GL.

Ans: B

Q.22 The way a particular application views the data from the database that the application uses is a

- (A) module.
- (B) relational model.
- (C) schema.
- (D) subschema.

Ans: D

Q.23 In an E-R diagram an entity set is represented by a

- (A) rectangle.
- (B) ellipse.
- (C) diamond box.
- (D) circle.

Ans: A

Q.24 A report generator is used to

- (A) update files.
- (B) print files on paper.
- (C) data entry.
- (D) delete files.

Ans: B

Q.25 The property/properties of a database is/are:

- (A) It is an integrated collection of logically related records.
- (B) It consolidates separate files into a common pool of data records.
- (C) Data stored in a database is independent of the application programs using it.
- (D) All of the above.

Ans: D

Q.26 The DBMS language component which can be embedded in a program is

- (A) The data definition language (DDL).
- (B) The data manipulation language (DML).
- (C) The database administrator (DBA).
- (D) A query language.

Ans: B

Q.27 A relational database developer refers to a record as

- (A) Criteria.
- (B) a relation.
- (C) a tuple.
- (D) an attribute.

Ans: C

Q.28 The relational model feature is that there

- (A) is no need for primary key data.
- (B) is much more data independence than some other database models.
- (C) are explicit relationships among records.
- (D) are tables with many dimensions.

Ans: B

Q.29 Conceptual design

- (A) is a documentation technique.
- (B) needs data volume and processing frequencies to determine the size of the database.
- (C) involves modelling independent of the DBMS.
- (D) is designing the relational model.

Ans: C

Q.30 The method in which records are physically stored in a specified order according to a key field in each record is

- (A) hash.
- (B) direct.
- (C) sequential.
- (D) all of the above.

Ans: A

Q.31 A subschema expresses

- (A) the logical view.
- (B) the physical view.
- (C) the external view.
- (D) all of the above.

Ans: C

Q.32 Count function in SQL returns the number of

- (A) values.
- (B) distinct values.
- (C) groups.
- (D) columns.

Ans: A

Q.33 Which one of the following statements is false?

- (A) The data dictionary is normally maintained by the database administrator.
- (B) Data elements in the database can be modified by changing the data dictionary.
- (C) The data dictionary contains the name and description of each data element.
- (D) A data dictionary is a tool used exclusively by the database administrator.

Ans: B

Q.34 An advantage of the database management approach is

- (A) data is dependent on programs.
- (B) data redundancy increases.
- (C) data is integrated and can be accessed by multiple programs.
- (D) none of the above.

Ans: C

Q.35 A DBMS query language is designed to

- (A) support end-users who use English-like commands.
- (B) support in the development of complex applications software.
- (C) specify the structure of a database.
- (D) all of the above.

Ans: D

Q.36 Transaction processing is associated with everything below except

- (A) producing detail, summary, or exception reports.
- (B) recording a business activity.
- (C) confirming an action or triggering a response.
- (D) maintaining data.

Ans: C

Q.37 It is possible to define a schema completely using

- (A) VDL and DDL.
- (B) DDL and DML.
- (C) SDL and DDL.
- (D) VDL and DML.

Ans: B

Q.38 The method of access which uses key transformation is known as

- (A) direct.
- (B) hash.
- (C) random.
- (D) sequential.

Ans: B

Q.39 Data independence means

- (A) data is defined separately and not included in programs.
- (B) programs are not dependent on the physical attributes of data.
- (C) programs are not dependent on the logical attributes of data.
- (D) both (B) and (C).

Ans: D both (B) and (C)

Q.40 The statement in SQL which allows changing the definition of a table is

- (A) Alter.
- (B) Update.

- (C) Create.
- (D) select.

Ans: A.

Set:- 3 MCQ on DBMS

Q.41 E-R model uses this symbol to represent a weak entity set?

- (A) Dotted rectangle.
- (B) Diamond
- (C) Doubly outlined rectangle
- (D) None of these

Ans: C

Q.42 SET concept is used in:

- (A) Network Model
- (B) Hierarchical Model
- (C) Relational Model
- (D) None of these

Ans: A

Q.43 Relational Algebra is

- (A) Data Definition Language.
- (B) Meta Language
- (C) Procedural Query Language
- (D) None of the above

Ans: C

Q.44 Key to represent the relationship between tables is called

- (A) Primary key
- (B) Secondary Key
- (C) Foreign Key
- (D) None of these

Ans: C

Q.45 \_\_\_\_\_ produces the relation that has attributes of R1 and R2

- (A) Cartesian product
- (B) Difference
- (C) Intersection
- (D) Product

Ans: A

Q.46 The file organisation that provides very fast access to any arbitrary record of a file is

- (A) Ordered file
- (B) Unordered file
- (C) Hashed file
- (D) B-tree

Ans: C

Q.47 DBMS helps achieve

- (A) Data independence
- (B) Centralised control of data
- (C) Neither (A) or (B)
- (D) both (A) and (B)

Ans: D

Q.48 Which of the following are the properties of entities?

- (A) Groups
- (B) Table
- (C) Attributes
- (D) Switchboards

Ans: C

Q.49 In a relation

- (A) Ordering of rows is immaterial
- (B) No two rows are identical
- (C) (A) and (B) both are true
- (D) None of these.

Ans: C

Q.50 Which of the following is correct:

- (A) a SQL query automatically eliminates duplicates.
- (B) SQL permits attribute names to be repeated in the same relation.
- (C) a SQL query will not work if there are no indexes on the relations
- (D) None of these

Ans: D

Q.51 It is better to use files than a DBMS when there are

- (A) Stringent real-time requirements.
- (B) Multiple users wish to access the data.
- (C) Complex relationships among data.
- (D) All of the above.

Ans: B

Q.52 The conceptual model is

- (A) dependent on hardware.
- (B) dependent on software.
- (C) dependent on both hardware and software.
- (D) independent of both hardware and software.

Ans: D

Q.53 What is a relationship called when it is maintained between two entities?

- (A) Unary
- (B) Binary
- (C) Ternary
- (D) Quaternary



Ans: B

Q.54 Which of the following operation is used if we are interested in only certain columns of a table?

- (A) PROJECTION
- (B) SELECTION
- (C) UNION
- (D) JOIN

Ans: A

Q.55 Which of the following is a valid SQL type?

- (A) CHARACTER
- (B) NUMERIC
- (C) FLOAT
- (D) All of the above

Ans: D

Q.56 The RDBMS terminology for a row is

- (A) tuple.
- (B) relation.
- (C) attribute.
- (D) degree.

Ans: A

Q.57 Which of the following operations need the participating relations to be union compatible?

- (A) UNION
- (B) INTERSECTION
- (C) DIFFERENCE
- (D) All of the above

Ans: D

Q.58 The full form of DDL is

- (A) Dynamic Data Language
- (B) Detailed Data Language
- (C) Data Definition Language
- (D) Data Derivation Language

Ans: C

Q.59 Which of the following is an advantage of view?

- (A) Data security
- (B) Derived columns
- (C) Hiding of complex queries
- (D) All of the above

Ans: D

Q.60 Which of the following is a legal expression in SQL?

- (A) SELECT NULL FROM EMPLOYEE;
- (B) SELECT NAME FROM EMPLOYEE;
- (C) SELECT NAME FROM EMPLOYEE WHERE SALARY = NULL;
- (D) None of the above

Ans: B

Set:- 4 MCQ on DBMS

Q.61 The users who use the easy-to-use menu are called

- (A) Sophisticated end users.
- (B) Naïve users.
- (C) Stand-alone users.
- (D) Casual end users.

Ans: B

Q.62 Which database level is closest to the users?

- (A) External
- (B) Internal
- (C) Physical
- (D) Conceptual

Ans: A

Q.63 Which are the two ways in which entities can participate in a relationship?

- (A) Passive and active
- (B) Total and partial
- (C) Simple and Complex
- (D) All of the above

Ans: B

Q.64 The result of the UNION operation between R1 and R2 is a relation that includes

- (A) all the tuples of R1
- (B) all the tuples of R2
- (C) all the tuples of R1 and R2
- (D) all the tuples of R1 and R2 which have common columns

Ans: D

Q.65 Which of the following is a comparison operator in SQL?

- (A) =
- (B) LIKE
- (C) BETWEEN
- (D) All of the above

Ans: D

Q.66 A set of possible data values is called

- (A) attribute.
- (B) degree.
- (C) tuple.
- (D) domain.

Ans: D

Q.67 Which of the operations constitute a basic set of operations for manipulating relational data?

- (A) Predicate calculus
- (B) Relational calculus
- (C) Relational algebra
- (D) None of the above

Ans: C

Q.68 Which of the following is another name for the weak entity?

- (A) Child
- (B) Owner
- (C) Dominant
- (D) All of the above

Ans: A

Q.69 Which of the following database object does not physically exist?

- (A) base table
- (B) index
- (C) view
- (D) none of the above

Ans: C

Q.70 NULL is

- (A) the same as 0 for integer
- (B) the same as blank for character
- (C) the same as 0 for integer and blank for character
- (D) not a value

Ans: D

Q.71 Which of the following is a record based logical model?

- (A) Network Model
- (B) Object-oriented model
- (C) E-R Model
- (D) None of these

Ans: A

Q.72 A data dictionary is a special file that contains:

- (A) The name of all fields in all files.
- (B) The width of all fields in all files.
- (C) The data type of all fields in all files.
- (D) All of the above.

Ans: D

Q.73 A file manipulation command that extracts some of the records from a file is called

- (A) SELECT
- (B) PROJECT
- (C) JOIN
- (D) PRODUCT

Ans: A

Q.74 The physical location of a record is determined by a mathematical formula that transforms a file key into a record location is:

- (A) B-Tree File
- (B) Hashed File
- (C) Indexed File
- (D) Sequential file.

Ans: B

Q.75 Using Relational Algebra the query that finds customers, who have a balance of over 1000 is

- (A) P Customer\_name (S balance >1000 (Deposit))
- (B) S Customer\_name (P balance >1000 (Deposit))
- (C) P Customer\_name (S balance >1000 (Borrow))
- (D) S Customer\_name (P balance >1000 (Borrow))

Ans: A

Q.76 A primary key is combined with a foreign key creates

- (A) Parent-Child relationship between the tables that connect them.
- (B) Many to many relationships between the tables that connect them.
- (C) Network model between the tables that connect them.
- (D) None of the above.

Ans: A

Q.77 In E-R Diagram derived attribute is represented by

- (A) Ellipse
- (B) Dashed ellipse
- (C) Rectangle
- (D) Triangle

Ans: B

Q.78 Cross Product is a:

- (A) Unary Operator
- (B) Ternary Operator
- (C) Binary Operator
- (D) Not an operator

Ans: C

Q.79 An instance of relational schema R (A, B, C) has distinct values of A, including NULL values. Which one of the following is true?

- (A) A is a candidate key
- (B) A is not a candidate key
- (C) A is a Primary Key

(D) Both (A) and (C)

Ans: B

Q.80 Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:

- (A) mn
- (B) m+n
- (C)  $(m+n)/2$
- (D)  $2(m+n)$

Ans: A.

Set:- 5 MCQ on DBMS

Q.81 The natural join is equal to:

- (A) Cartesian Product
- (B) Combination of Union and Cartesian product
- (C) Combination of selection and Cartesian product
- (D) Combination of projection and Cartesian product

Ans: D

Q.82 Which one of the following is not true for a view:

- (A) A view is derived from other tables.
- (B) A view is a virtual table.
- (C) A view definition is permanently stored as part of the database.
- (D) The view never contains derived columns.

Ans: C

Q.83 A primary key, if combined with a foreign key, creates

- (A) Parent-Child relationship between the tables that connect them.
- (B) Many to many relationships between the tables that connect them.
- (C) Network model between the tables that connect them.
- (D) None of the above.

Ans: A

Q.84 In E-R Diagram relationship type is represented by

- (A) Ellipse
- (B) Dashed ellipse
- (C) Rectangle
- (D) Diamond

Ans: D

Q.85 Hierarchical model is also called

- (A) Tree structure
- (B) Plex Structure
- (C) Normalise Structure
- (D) Table Structure

Ans: A

Q.86 To delete a particular column in a relation the command used is:

- (A) UPDATE
- (B) DROP
- (C) ALTER
- (D) DELETE

Ans: C

Q.87 The \_\_\_\_\_ operator is used to compare a value to a list of literals values that have been specified.

- (A) BETWEEN
- (B) ANY
- (C) IN
- (D) ALL

Ans: A

Q.88 A logical schema

- A) is the entire database
- B) is a standard way of organising information into an accessible part
- C) describe how data is actually stored on disk
- D) None of these

Ans: A

Q.89 A B-tree of order m has maximum of \_\_\_\_\_ children

- (A) m
- (B) m+1
- (C) m-1
- (D) m/2

Ans: A

Q.90 \_\_\_\_\_ function divides one numeric expression by another and returns the remainder.

- (A) POWER
- (B) MOD
- (C) ROUND
- (D) REMAINDER

Ans: B

Q.91 A data manipulation command the combines the records from one or more tables is called

- (A) SELECT
- (B) PROJECT
- (C) JOIN
- (D) PRODUCT

Ans: C

Q.92 In E-R diagram generalisation is represented by

- (A) Ellipse

- (B) Dashed ellipse
- (C) Rectangle
- (D) Triangle

Ans: D

Q.93 \_\_\_\_\_ is a virtual table that draws its data from the result of an SQL SELECT statement.

- (A) View
- (B) Synonym
- (C) Sequence
- (D) Transaction

Ans: A

Q.94 The method of access which uses key transformation is known as

- (A) Direct
- (B) Hash
- (C) Random
- (D) Sequential

Ans: B

Q.95 A table joined with itself is called

- (A) Join
- (B) Self Join
- (C) Outer Join
- (D) Equi Join

Ans: B

Q.96 \_\_\_\_\_ data type can store unstructured data

- (A) RAW
- (B) CHAR
- (C) NUMERIC
- (D) VARCHAR

Ans: A