Basic concepts : Purpose of database systems, Components of dbms, DBMS

architecture, Data Independence, Data modeling, Entity relationship model,

Hierarchical Model, Network Model, Relational Model, Object Oriented Models

Chapter 01:

1. The following are components of a database except \_\_\_\_\_\_\_\_ .

(A) user data. (B) metadata.(C) reports . (D) indexes

Answer C

2 In the relational modes, cardinality is termed as:

(A) Number of tuples. (B) Number of attributes.

(C) Number of tables. (D) Number of constraints.

Ans: A

3 DML is provided for

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

Ans: C

4. The database schema is written in

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

Ans: C

5.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

6. In a Hierarchical model records are organized as

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

Ans: D

7.A logical schema

(A) is the entire database. (B) is a standard way of organizing information into accessible parts.

(C) describes how data is actually stored on disk. (D) both (A) and (C)

Ans: A

8.

In which of the following is a single-entity instance of one type related to many entity instances of another type?

A. One-to-One Relationship B. One-to-Many Relationship C. Many-to-Many Relationship

D. Composite Relationship

Answer: B

9.

In Entiry Relationship Diagram rectangles represents

A. Entity Set B. Attributes C. Database D. Tables

Answer: A

10. 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

11. E-R model uses this symbol to represent weak entity set ?

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

Ans: C

12.The users who use easy-to-use menu are called

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

Ans: B

13.Which database level is closest to the users?

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

Ans: A

14. 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

15.

The collection of information stored in a database at a particular moment is called as ......  
  
A. schema B. instance of the database C. data domain D. independence

And B

16  …………..defines the structure of a relation which consists of a fixed set of attribute-domain pairs.  
  
A) Instance  B) Schema c) Program D) Super Key

Ans b

17 A top-to-bottom relationship among the items in a database is established by a   
  
A) Hierarchical schema B) Network schema C) Relational Schema D) All of the above

Ans A

18 In an ER model, ……………. is described in the database by storing its data.  
  
A) Entity B) Attribute C) Relationship D) Notation

Ans A

19

In a relational schema, each tuple is divided into fields called   
  
A) Relations B) Domains C) Queries D) All of the above

Asn B

20 The candidate key is that you choose to identify each row uniquely is called ……………..

A) Alternate Key B) Primary Key C) Foreign Key D) None of the above

Ans B

21 ………………… is preferred method for enforcing data integrity

A) Constraints B) Stored Procedure C) Triggers D) Cursors

Ans A

22 To eliminate duplicate rows ……………… is used

A) NODUPLICATE B) ELIMINATE C) DISTINCT D) None of these

Ans C

23

Which can be used to delete all the rows if a table?  
  
A) Delete \* from table\_name B) Delete from table\_name C) Delete table\_name   
D) all rows cannot be deleted at a time.

Ans A

24

In ..................... , we have a strict parent-child relationship only.

A) [hierarchical databases](http://en.wikipedia.org/wiki/Hierarchical_database_model). B) network databases C) object oriented databases D) relational databases

Ans A

25

 The .................... refers to the way data is organized in and accessible from DBMS.

A) database hierarchy B) data organization C) data sharing D) [data model](http://en.wikipedia.org/wiki/Data_model)

Ans D

26 Which of the following is not a characteristic of a relational database model?

A. Table B. Tree like structure C. Complex logical relationship D. Records

Ans b

Structure of relational databases : Relational databases, Relational algebra, Tuple

Relational Calculus, Data Definition with SQL, Data Manipulation : Insert, Delete and

Update in SQL, Views

Chapter 02:

1.

SQL stands for \_\_\_\_\_\_\_\_ .

(A) Structured Query Language (B) Sequential Query Language (C) Structured Question Language (D) Sequential Question Language

Answer A

2. A relational database developer refers to a record as

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

Ans: C

3. Count function in SQL returns the number of

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

Ans: A

4.The statement in SQL which allows to change the definition of a table is

(A) Alter. (B) Update. (C) Create. (D) select.

Ans: A

5. Relational Algebra is

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

Ans: C

6.Key to represent relationship between two tables is called

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

Ans: C

7.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

8. The full form of DDL is

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

Ans: C

9.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

10.A set of possible data values for any attribute is called

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

Ans: D

11.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

12.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

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

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

Ans: C

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

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

Ans: C

15.\_\_\_\_\_\_\_\_\_ 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

16.

In SQL, how to select all the records from a table named as "Employee" where the value of the column "Name" starts with "s"?

a) SELECT \* FROM Employee WHERE Name = ‘s%' b) SELECT \* FROM Employee WHERE Name LIKE s% c) SELECT \* FROM Employee WHERE Name LIKE 's%' d) SELECT \* FROM Employee WHERE Name='s'

Anser C

17. Which of the following SQL command can be used to modify existing data in a database table?

A) MODIFY B) UPDATE C) CHANGE D) NEW

Anser B

18. To change column value in a table the ......... command can be used.

A. create B. insert C. alter D. update

Ans D

19. A set of possible data values is called

A. attribute B. degree C. tuple D. domain

answer D

20. Which of the following SQL command can be used to modify existing data in a database table?

A) MODIFY B) UPDATE C) CHANGE D) NEW

Anser B

21) To change column value in a table the ......... command can be used.

A. create B. insert C. alter D. update

Ans D

22 A set of possible data values is called

A. attribute B. degree C. tuple D. domain

answer D

23 Grant and revoke are ....... statements.  
  
A. DDL B. TCL C. DCL D. DML

Ans c

24 A ......... is used to define overall design of the database  
  
A. schema B. application program C. data definition language D. code

Ans A

25 .......... keyword is used to find the number of values in a column.  
  
A. TOTAL B. COUNT C. ADD D. SUM

Ans b

26. ……………… clause is an additional filter that is applied to the result.  
  
A) Select B) Group-by C) Having D) Order by

Ans C

Database design : Design guidelines, Relational database design, Integrity

constraints, Domain Constraints, Referential Integrity Constraints, First normal form,

Functional Dependency, Normalization using Functional Depenedencies, Second

normal form, Third normal form, Forth normal form, Boyce Codd Normal Form,

Multivalued Dependencies, Join dependencies, Fifth normal Form and pitfalls in

relational database design.

Chapter 03:

1 Normalization is a process of restructuring a relation to

(a) minimize duplication of data in a database (b) maximize duplication of data to ensure reliability

(c) make it of uniform size (d) allow addition of data

Answer A

2. Normalization of database is essential to

(i) avoid accidental deletion of required data when some data is deleted (ii) eliminate inconsistencies when a data item is modified in the database(iii) allows storage of data in a computer’s disk (iv) use a database management system

(a) i and iii (b) i and ii

(c) ii and iii (d) ii and iv

Answer: B

3.

A relation is said to be in 1NF if

(a) there is no duplication of data (b) there are no composite attributes in the relation

(c) there are only a few composite attributes (d) all attributes are of uniform type

Answer B

4. When the values in one or more attributes being used as a foreign key must exist in another set of one or more attributes in another table, we have created a(n):

A. transitive dependency. B. insertion anomaly. C. referential integrity constraint. D. normal form.

ans C

5. A relation is considered a:

A. Column. B. one-dimensional table. C. two-dimensional table. D. three-dimensional table.

ans C

6 In the relational model, relationships between relations or tables are created by using:

A. composite keys. B. determinants. C. candidate keys. D. foreign keys.

ans D

7 A functional dependency is a relationship between or among:

A. tables. B. rows. C. relations. D. attributes.

ans D

8 Which of the following is not a restriction for a table to be a relation?

A. The cells of the table must contain a single value. B. All of the entries in any column must be of the same kind. C. The columns must be ordered. D. No two rows in a table may be identical.

ans c

9 A key:

A. must always be composed of two or more columns. B. can only be one column.

C. identifies a row. D. identifies a column.

ans c

10 Every time attribute A appears, it is matched with the same value of attribute B, but not the same value of attribute C. Therefore, it is true that:

A. A → B. B. A → C. C. A → (B,C). D. (B,C) → A.

ans A

11 A relation is in this form if it is in BCNF and has no multivalued dependencies:

A. second normal form. B. third normal form. C. fourth normal form.

D. domain/key normal form.

ans c

12 The primary key is selected from the:

A. composite keys. B. determinants. C. candidate keys. D. foreign keys.

ans c

13 If there is more than one key for relation schema in DBMS then each key in relation schema is classified as

a. prime key b. super key c. candidate key d. primary key

ans c

14 The property of normalization of relations which guarantees that functional dependencies are represented in separate relations after decomposition is classified as

a. nonadditive join property b. independency reservation property c. dependency preservation property d. additive join property

ans c

15 If the attribute of relation schema R is not a member of some candidate key then this type of attribute is classified as

a. nonprime attribute b. prime attribute c. atomic attribute d. candidate attribute

ans a

16 Considering the functional dependency, the one in which removal of some attributes does not affect dependency is called

a. full functional dependency b.partial dependency c. prime functional dependency d. transitive dependency

ans b

17 The constraint between two different attributes sets is classified as

a. modification anomaly b. functional dependency c. insertion anomaly d. deletion anomaly

ans b

18 The normalization form which is based on the transitive dependency is classified as

a.first normal form b.second normal form c.fourth normal form d.third normal form

ans d

19 Considering the functional dependency, the one in which removal from some attributes must affect dependency is called

a.full functional dependency b.partial dependency c. prime functional dependency

d. transitive dependency

and a

20 The normal form which only includes indivisible values or single atomic values is classified as

a. third normal form b. first normal form c. second normal form d. fourth normal form

ans b

21  Architecture of the database can be viewed as

A. two levels B. four levels C. three levels D. one level

Ans C

22

 ....... is a condition specified on a database schema and restricts the data that can be stored in an instance of the database.

A. Key Constraint B. Check Constraint C. Foreign key constraint D. integrity constraint

Ans B

23

Which of the following query is correct for using comparison operators in [SQL](http://www.iso.org/iso/catalogue_detail.htm?csnumber=45498)?  
  
A) SELECT sname, coursename FROM studentinfo WHERE age>50 and <80;  
  
B) SELECT sname, coursename FROM studentinfo WHERE age>50 and age <80;  
  
C) SELECT sname, coursename FROM studentinfo WHERE age>50 and WHERE age<80;  
  
D) None of the above

Ans B

24

 Which query is used for sorting data that retrieves the all the fields from empinfo table and listed them in the ascending order?  
  
A) SELECT \* FROM empinfo ORDER BY age;  
  
B) SELECT \* FROM empinfo ORDER age;  
  
C) SELECT \* FROM empinfo ORDER BY COLUMN age;  
  
D) SELECT \* FROM empinfo SORT BY age;

Ans A

25

 Which of the following [SQL query](http://en.wikipedia.org/wiki/Select_%28SQL%29) is correct for selecting the name of staffs from 'tblstaff' table where salary is 15,000 or 25,000?  
  
A) SELECT sname from tblstaff WHERE salary IN (15000, 25000);  
  
B) SELECT sname from tblstaff WHERE salary BETWEEN 15000 AND 25000;  
  
C) Both A and B  
  
D) None of the above

Asn A

26

How to select all data from studentinfo table starting the name from letter 'r'?  
  
A) SELECT \* FROM studentinfo WHERE sname LIKE 'r%';  
  
B) SELECT \* FROM studentinfo WHERE sname LIKE '%r%';  
  
C) SELECT \* FROM studentinfo WHERE sname LIKE '%r';  
  
D) SELECT \* FROM studentinfo WHERE sname LIKE '\_r%';

Ans A

27

The Redundancy in a table in order to improve performance is called

a)Demoralization

b)Normalization

c)Boyce-Codd Normal Form

d)None of the above

ans A

28

A table has fields F1, F2 , F3 , F4, F5 with the following functional dependencies

Fi —> F3,

F2 —> F4

(FI,F2) —> F5

In terms of normalization, this table is in

A.

1 NF

B.

2 NF

C.

3 NF

D.

None of these

ans a