Database Management System

Unit-1: Introduction to Database Management System

1. A collection of related data is _____
   a) Information
   b) Valuable information
   c) Database
   d) Metadata
2. DBMS manages the interaction between _____ and database.
   a) Users
   b) Clients
   c) End Users
   d) Stake Holders
3. Which of the following is not involved in DBMS?
   a) End Users
   b) Data
   c) Application Request
   d) HTML
4. Database is generally _____
   a) System-centered
   b) User-centered
   c) Company-centered
   d) Data-centered
5. IMS stands for?
   a) Information Mastering System
   b) Instruction Management System
   c) Instruction Manipulating System
   d) Information Management System
6. Database is collection of ____.
   a. Data
   b. Program
   c. Modules
   d. None of these
7. _____ is collection of interrelated data and set of program to access them.
   a. Database management system
   b. Programming language
   c. Database

d. Data structure

8. DBMS should provide following feature(s) _____.
   a. Protect data from system crash
   b. Authorized access
   c. Safety of information stored
   d. All of these
9. MIS stands for:
   a. Management Information Server
   b. Management Information Service
   c. Management Information System
   d. Master Information System
10. Which is the false statement:
   a. A database is ordered collection of data.
   b. A database is systematic compilation of records in a computer.
   c. DBMS manages the database
   d. Data helps in making decisions.
11. Which is the data model
   a. Relational
   b. Object-Relational
   c. Network
   d. All of these
12. Which is not the feature of database:
   a. Data redundancy
   b. Independence
   c. Flexibility
   d. Data Integrity
13. Which is the type of data independence:
   a. Physical data independence
   b. Logical data independence
   c. Both
   d. None of these
14. Which is the database language:
   a. C
   b. C++
   c. SQL
   d. None of these
15. Which person is responsible for overall activities for database:
   a. Database designer
   b. Database analyst
   c. Database Administrator
   d. Database manager
16. Which level of database is viewed by user:
   a. Internal level
   b. External Level
   c. Conceptual Level
   d. All of these

17. Internal level has:
    a. Individual Users View of the database
    b. Community view of the database
    c. Physical Representation of the database
    d. All of these
18. Which is the component of database management system:
    a. Query Language
    b. Database Manager
    c. File manager
    d. All of these
19. Schema is defined by:
    a. DML
    b. DDL
    c. DCL
    d. DQL
20. Schema is usually stored in_____.
    a. Tables
    b. Data Dictionary
    c. Both
    d. None of these
21. DBMS is the bridge between operating system and _____.
    a. User
    b. Database administrator
    c. Application program
    d. None of these
22. Which is the most popular database model:
    a. Network Model
    b. Relational Model
    c. Hierarchical Model
    d. Object Oriented
23. Which is the schema object:
    a. Database links and clusters
    b. Packages and Indexes
    c. Procedures and functions
    d. All of these
24. In database records are called:
    a. Attributes
    b. Entity
    c. Tuples
    d. Relations
25. Which of the following is considered as DBMS ?
    a. Access
    b. Foxpro
    c. Oracle
    d. All of these
26. Before use of DBMS information was stored using _____.

a. File management system
b. Cloud storage
c. Data system
d. None of these

27. The view of total database concept is
(A) Conceptual view.
(B) Internal view.
(C) External view.
(D) Physical View.

28. Which of the following isn’t a level of abstraction?
a) physical
b) logical
c) user
d) view

29. A level that describes how a record is stored.
a) physical
b) logical
c) user
d) view

30. The _____level helps application programs hide the details of data types.
a) physical
b) logical
c) user
d) view

31. A logical structure of the database.
a) Schema
b) Attribute
c) Parameter
d) Instance

32. The actual content in the database at a particular point.
a) Schema
b) Attribute
c) Parameter
d) Instance

33. A level that describes data stored in a database and the relationships among the data.
a) physical
b) logical
c) user
d) view

34. Architecture of the database can be viewed as
    (A) two levels.
    (B) four levels.
    (C) three levels.
    (D) one level.
35. ODBC stands for
    (A) Object Database Connectivity.
    (B) Oral Database Connectivity.
    (C) Oracle Database Connectivity.
    (D) Open Database Connectivity.
36. In the architecture of a database system external level is the
    (A) physical level.
    (B) logical level.
    (C) conceptual level
    (D) view level.
37. 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
38. 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)
39. Related fields in a database are grouped to form a
    (A) data file.
    (B) data record.
    (C) menu.
    (D) bank.
40. The database environment has all of the following components except:
    (A) users.
    (B) separate files.
    (C) database.
    (D) database administrator.
41. 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.

42. The restrictions placed on the data.
    a) Relation
    b) Attribute
    c) Parameter
    d) Constraint
43. A model developed by Hammer and Mc Leod in 1981.
    a) SDM
    b) OODBM
    c) DDM
    d) RDM
44. 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.
45. 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.
46. A data model is :
    a. Used to describe the structure of database
    b. Set of basic operation on database
    c. Both A and B
    d. None of above
47. DBA stands for_____
    a. Database application
    b. Database administration
    c. Database admin
    d. None of these
48. DBMS stands for _____.
    a. Database Basic Management System
    b. Database Management System
    c. Database Administrator System
    d. None of these
49. A database is a complex type of _____.
    a. Data structure
    b. Application

c. Both A and B
d. None of these

50. Between the users and the database itself, a DBMS will act as,
    a. Barrier
    b. Interface
    c. Referee
    d. obstacle

Unit-2: Relational Model and Entity Relationship Model

1. An _____ is a set of entities of the same type that share the same properties, or attributes.
   a) Entity set
   b) Attribute set
   c) Relation set
   d) Entity mode
2. Entity is a _____
   a) Object of relation
   b) Present working model
   c) Thing in real world
   d) Model of relation
3. The descriptive property possessed by each entity set is _____
   a) Entity
   b) Attribute
   c) Relation
   d) Model
4. The function that an entity plays in a relationship is called that entity's _____
   a) Participation
   b) Position
   c) Role
   d) Instance
5. The attribute AGE is calculated from DATE_OF_BIRTH. The attribute AGE is
   a) Single valued
   b) Multi valued
   c) Composite
   d) Derived
6. The attribute *name* could be structured as an attribute consisting of first name, middle initial, and last name. This type of attribute is called

a) Simple attribute
b) Composite attribute
c) Multivalued attribute
d) Derived attribute

7. Which of the following can be a multivalued attribute?
   a) Phone_number
   b) Name
   c) Date_of_birth
   d) All of the mentioned
8. Which of the following is a single valued attribute
   a) Enrollment_number
   b) Address
   c) SUBJECT_TAKEN
   d) Reference
9. In a relation between the entities the type and condition of the relation should be specified. That is called as_____attribute.
   a) Desciptive
   b) Derived
   c) Recursive
   d) Relative
10. Not applicable condition can be represented in relation entry as
    a) NA
    b) 0
    c) NULL
    d) Blank Space
11. _____ express the number of entities to which another entity can be associated via a relationship set.
    a) Mapping Cardinality
    b) Relational Cardinality
    c) Participation Constraints
    d) None of the mentioned
12. An entity in A is associated with at most one entity in B, and an entity in B is associated with at most one entity in A. This is called as
    a) One-to-many
    b) One-to-one
    c) Many-to-many
    d) Many-to-one
13. An entity in A is associated with at most one entity in B. An entity in B, however, can be associated with any number (zero or more) of entities in A.
    a) One-to-many

b) One-to-one
c) Many-to-many
d) Many-to-one

14. Data integrity constraints are used to:
    a) Control who is allowed access to the data
    b) Ensure that duplicate records are not entered into the table
    c) Improve the quality of data entered for a specific property
    d) Prevent users from changing the values stored in the table
15. _____ is a special type of integrity constraint that relates two relations & maintains consistency across the relations.
    a) Entity Integrity Constraints
    b) Referential Integrity Constraints
    c) Domain Integrity Constraints
    d) Domain Constraints
16. Which one of the following uniquely identifies the elements in the relation?
    a) Secondary Key
    b) Primary key
    c) Foreign key
    d) Composite key
17. Drop Table cannot be used to drop a table referenced by a _____ constraint.
    a) Local Key
    b) Primary Key
    c) Composite Key
    d) Foreign Key
18. _____ is preferred method for enforcing data integrity
    a) Constraints
    b) Stored Procedure
    c) Triggers
    d) Cursors
19. In an Entity-Relationship Diagram Rectangles represents
    a. Entity sets
    b. Attributes
    c. Database
    d. Tables
20. Which of the following gives a logical structure of the database graphically?
    a) Entity-relationship diagram
    b) Entity diagram
    c) Database diagram
    d) Architectural representation

21. The entity relationship set is represented in E-R diagram as
    a) Double diamonds
    b) Undivided rectangles
    c) Dashed lines
    d) Diamond
22. The Rectangles divided into two parts represents
    a) Entity set
    b) Relationship set
    c) Attributes of a relationship set
    d) Primary key
23. We indicate roles in E-R diagrams by labeling the lines that connect _____ to _____
    a) Diamond , diamond
    b) Rectangle, diamond
    c) Rectangle, rectangle
    d) Diamond, rectangle
24. An entity set that does not have sufficient attributes to form a primary key is termed a _____
    a) Strong entity set
    b) Variant set
    c) Weak entity set
    d) Variable set
25. For a weak entity set to be meaningful, it must be associated with another entity set, called the
    a) Identifying set
    b) Owner set
    c) Neighbour set
    d) Strong entity set
26. Weak entity set is represented as
    a) Underline
    b) Double line
    c) Double diamond
    d) Double rectangle
27. If you were collecting and storing information about your music collection, an album would be considered a(n) _____
    a) Relation
    b) Entity
    c) Instance
    d) Attribute

28. What term is used to refer to a specific record in your music database; for instance; information stored about a specific album?
    a) Relation
    b) Instance
    c) Table
    d) Column
29. The total participation by entities is represented in E-R diagram as
    a) Dashed line
    b) Double line
    c) Double rectangle
    d) Circle
30. Given the basic ER and relational models, which of the following is INCORRECT?
    a) An attribute of an entity can have more than one value
    b) An attribute of an entity can be composite
    c) In a row of a relational table, an attribute can have more than one value
    d) In a row of a relational table, an attribute can have exactly one value or a NULL value
31. Which of the following indicates the maximum number of entities that can be involved in a relationship?
    a) Minimum cardinality
    b) Maximum cardinality
    c) ERD
    d) Greater Entity Count
32. In E-R diagram generalization is represented by
    a) Ellipse
    b) Dashed ellipse
    c) Rectangle
    d) Triangle
33. What is a relationship called when it is maintained between two entities?
    a) Unary
    b) Binary
    c) Ternary
    d) Quaternary
34. The entity set person is classified as student and employee. This process is called _____
    a) Generalization
    b) Specialization
    c) Inheritance
    d) Constraint generalization
35. Which relationship is used to represent a specialization entity?
    a) ISA

b) AIS
c) ONIS
d) WHOIS

36. If an entity set is a lower-level entity set in more than one ISA relationship, then the entity set has
    a) Hierarchy
    b) Multilevel inheritance
    c) Single inheritance
    d) Multiple inheritance
37. A _____ constraint requires that an entity belong to no more than one lower-level entity set.
    a) Disjointness
    b) Uniqueness
    c) Special
    d) Relation
38. Functional dependencies are a generalization of
    a) Key dependencies
    b) Relation dependencies
    c) Database dependencies
    d) None of the mentioned
39. In an Entity-Relationship Diagram “Ellipses” represents
    a. Attributes
    b. Weak entity set
    c. Relationship sets
    d. Multi-valued attributes
40. UML is stands for
    a. Universal Modeling Language
    b. Unified Modeling Language
    c. United Modeling Language
    d. Uni Modeling Language
41. Which one of the following is a set of one or more attributes taken collectively to uniquely identify a record?
    a. Candidate key
    b. Sub key
    c. Super key
    d. Foreign key
42. A recursive relationship is a relationship between an entity and _____ .
    a. Itself
    b. a subtype entity
    c. an archetype entity
    d. an instance entity

43. Entities of a given type are grouped into a(n):
    a. Database
    b. entity class
    c. attribute
    d. ERD
44. Entities can be associated with one another in which of the following?
    a. Entities
    b. Attributes
    c. Identifiers
    d. Relationships
45. Every weak entity set can be converted into strong entity set by:
    a. Using generalization
    b. Adding appropriate attribute
    c. Using aggregation
    d. None of above
46. The ER model include additional concepts like:
    a. Specialization
    b. Generalization
    c. Categorization
    d. All of above
47. E-R modeling technique is:
    a. Top-down approach
    b. Bottom-up approach
    c. Left-right approach
    d. None of these
48. A map of entities and their attributes and relations is represented by _____.
    a. Logical Schema
    b. Physical Schema
    c. Conceptual Schema
    d. None of these
49. An oval represents which of the following in an ERD?
    a. Attribute
    b. Entity
    c. Optional One
    d. Relationship
50. A binary relationship cannot be which of the following?
    a. One-to-One
    b. One-to-Many
    c. Many-to-Many
    d. Zero-to-Zero

Unit-3: Functional Dependencies and Normalization for Relational Databases

1. If every non-key attribute is functionally dependent on the primary key, then the relation will be in
   a) First Normal Form
   b) Second Normal Form
   c) Third Normal Form
   d) Boyce–Codd normal form
2. In a relational database a referential integrity constraint can be specified with the help of
   a) Primary key
   b) Foreign key
   c) Candidate key
   d) Unique key
3. A relation in third normal form is:
   a) in first normal form also
   b) second normal form also
   c) from transitive dependencies
   d) all of the above
4. In the _____ normal form, a composite attribute is converted to individual attributes.
   a) First
   b) Second
   c) Third
   d) Fourth
5. _____ eliminate all hidden dependencies.
   a) First Normal Form
   b) Second Normal Form
   c) a) & b)
   d) None of above mentioned
6. Which-one of the following statements about normal forms is FALSE?
   a) BCNF is stricter than 3NF
   b) Lossless, dependency-preserving decomposition into 3NF is always possible
   c) Lossless, dependency-preserving decomposition into BCNF is always possible
   d) Any relation with two attributes is in BCNF

7. In _____ every non-prime attribute of R is non-transitively dependent (i.e. directly dependent) on every super key of R.
   a) First Normal Form
   b) Second Normal Form

c) Third Normal Form
d) BCNF

8. If P->Q, P->R then which of the following is true?
   a) P->QR
   b) R->P
   c) Q->P
   d) R->Q
9. Which normal form is considered adequate for normal relational database design?
   (a) 2NF (b) 1NF (c) BCNF (d) 3NF
10. Consider a relation R (A, B, C, D) with function dependencies set = {AB -> C, AD -> B, B -> D}. Find closure of AB.
    a) {AB}+ = {A, B, C}
    b) {AB}+ = {A, B}
    c) {AB}+ = {A, B, C, D}
    d) {AB}+ = {A, B, D}
11. Given a relation R (A, B, C, D, E, F, G) with the following five functional dependencies F:

    A → BC

    E → CF

    B → E

    CD → EF

    A → G

    Find the closure of A.

    a) {A}+ = {A, B, C, D}
    b) {A}+ = {A, B, C, E, F, G}
    c) {A}+ = {A, B, C, D, E, F, G}
    d) None of above mentioned
12. Given a relation R (A, B, C, D, E, F, G) with the following five functional dependencies F:

    A → BC

    E → CF

    B → E

    CD → EF

    A → G

Find the closure of G.

a) {G}+ = {G}
b) {G}+ = {A, B, C, D, E, F, G}
c) {G}+ = NULL
d) None of above mentioned

13. If **P** holds **Q** (**P → Q**), where **Q** is not a subset of **P**, then it is called as a
    a) Trivial Functional Dependency
    b) Non-Trivial Functional Dependency
    c) Completely Non-Trivial Functional Dependency
    d) None of above mentioned
14. If **P** holds **Q** (**P → Q**), where **P** is a subset of **Q**, then it is called as a
    a) Trivial Functional Dependency
    b) Non-Trivial Functional Dependency
    c) Completely Non-Trivial Functional Dependency
    d) None of above mentioned
15. If **P** holds **Q** (**P → Q**), where **P** intersect **Y = Φ**, it is called as a
    a) Trivial Functional Dependency
    b) Non-Trivial Functional Dependency
    c) Completely Non-Trivial Functional Dependency
    d) None of above mentioned
16. If **P** holds **Q** (**P → Q**) and **P** holds **R** (**P → R**), then **P → QR**. This is called _____ rule of Armstrong axioms.

    a. Union
    b. Composition
    c. Decomposition
    d. Pseudo Transitivity

17. If **P** holds **Q** (**P → Q**) and **A** holds **B** (**A → B**), then **PA → QB**. This is called _____ rule of Armstrong axioms.

    a. Union
    b. Composition
    c. Decomposition
    d. Pseudo Transitivity

18. If **P → RQ** and **Q → S**, then **P → RS**. This is called _____ rule of Armstrong axioms.

    a. Union
    b. Composition
    c. Decomposition
    d. Pseudo Transitivity

19. In the _____, if Y is a subset of X, then X determines Y.

    a. Reflexive rule
    b. Augmentation rule
    c. Transitive rule
    d. Decomposition rule

20. In _____, if X determines Y, then XZ determines YZ for any Z.

    a. Reflexive rule
    b. Augmentation rule
    c. Transitive rule
    d. Decomposition rule

21. In 1NF attribute of a table can hold _____ value.

    a. Atomic
    b. Multiple
    c. a) or b)
    d. None of above mentioned

22. In the second normal form, all non-key attributes are _____ on the primary key.

    a) fully functional dependent
    b) partial functional dependent
    c) trivial Functional Dependency
    d) non-trivial Functional Dependency

23. If there is no transitive dependency for non-prime attributes, then the relation must be in _____.

    a) First Normal Form
    b) Second Normal Form
    c) Boyce–Codd normal form
    d) Third Normal Form

24. The closure of a _____ is the entire relation schema.
    a) super key
    b) primary key
    c) unique key
    d) candidate key

25. A BCNF is:
    a) loss less join and dependency preserving
    b) loss less join but not dependency preserving

c) not loss less join but dependency preserving
d) none of these

26. A functional dependency is a relationship between or among:

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

27. For some relations, changing the data can have undesirable consequences called:

a) referential integrity constraints
b) modification anomalies
c) normal forms
d) transitive dependencies

28. If attributes P and Q determine attribute R, then it is also true that:

a) P → R.
b) Q → R.
c) (P,Q) is a composite determinant.
d) R is a determinant.

29. If attribute A determines both attributes B and C, then it is also true that:

a) A → B
b) B → A
c) C → A
d) BC → A

30. Eliminating modification anomalies is a(n) _____ of normalization.

a) advantage
b) disadvantage
c) either an advantage or disadvantage
d) neither an advantage nor disadvantage

31. _____ dependencies should always be eliminated.

a) Single valued
b) Multi valued
c) Composite valued
d) None of above mentioned

32. If a table has been normalized so that all determinants are candidate keys, then that table is in:

a) 1NF
b) 2NF
c) 3NF
d) BCNF

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

a) primary key
b) super key
c) candidate key
d) primary key

34. Considering the relational database, the functional dependency between two attributes A and B is denoted by

a) $A \rightarrow B$
b) $B \leftarrow A$
c) $AB \rightarrow R$
d) $R \leftarrow AB$

35. If the attribute of relation schema R is member of some candidate key then this type of attributes are classified as

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

36. 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

37. In _____ removal of some attributes does not affect dependency.

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

d) transitive dependency

38. In the _____ normal form, a composite attribute is converted to individual attributes.

a) First
b) Second
c) Third
d) Fourth

39. Tables in second normal form (2NF):

a) Eliminate all hidden dependencies
b) Eliminate the possibility of a insertion anomalies
c) Have a composite key
d) Have all non key fields depend on the whole primary key

40. There are two functional dependencies with the same set of attributes on the left side of the arrow:

A->BC

A->B

This can be combined as

a) A->BC
b) A->B
c) B->C
d) None of the mentioned

41. 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

42. Consider a schema R(A, B, C, D) and functional dependencies A -> B and C -> D. Then the decomposition of R into R1 (A, B) and R2(C, D) is

a) dependency preserving and lossless join
b) lossless join but not dependency preserving
c) dependency preserving but not lossless join
d) not dependency preserving and not lossless join

43. Which one of the following statements if FALSE?

a) Any relation with two attributes is in BCNF
b) A relation in which every key has only one attribute is in 2NF
c) A prime attribute can be transitively dependent on a key in a 3 NF relation
d) A prime attribute can be transitively dependent on a key in a BCNF relation

44. What are the desirable properties of a decomposition ?

a) Partition constraint
b) Dependency preservation
c) Redundancy
d) Security

45. Given a relation R (A, B, C, D, E) with the following five functional dependencies F:
{B →CD, D → E, B → A, E → C, AD →B}

Find the closure of D.

a) {D}+ = {D, E, C}
b) {D}+ = {A, B, C, D, E}
c) {D}+ = {D, E, C, B}
d) None of above mentioned

46. Given a relation R (A, B, C, D, E) with the following five functional dependencies F:
{B →CD, D → E, B → A, E → C, AD →B}

Find the closure of A.

a) {A}+ = {A}
b) {A}+ = {A, B, C, D, E}
c) {A}+ = {A, D, B}
d) {A}+ = NULL

47. Given a relation R (X, Y, Z) with the following five functional dependencies F: {X-> Y, Y->Z, XZ -> Y}

Find the closure of Y.

a) {Y}+ = {Y}
b) {Y}+ = {Y, Z}
c) {Y}+ = {X, Y, Z}
d) None of above mentioned

48. The minimal set of super key is called

a) Primary key

b) Candidate key
c) Unique key
d) Foreign key

49. In RDBMS, different classes of relations are created using _____ technique to prevent modification anomalies.

a) Functional Dependencies
b) Data integrity
c) Referential integrity
d) Normal Forms

50. A table that displays data redundancies yields _____ anomalies

a) Insertion
b) Deletion
c) Update
d) All of the above

Unit-4: Introduction to Structured Query Language

1. Which one of the following is used to define the structure of the relation, deleting relations and relating schemas?
   a) DML(Data Manipulation Language)
   b) DDL(Data Definition Language)
   c) Query
   d) Relational Schema
2. Which one of the following provides the ability to query information from the database and to insert tuples into, delete tuples from, and modify tuples in the database?
   a) DML(Data Manipulation Language)
   b) DDL(Data Definition Language)
   c) Query
   d) Relational Schema
3. _____is a full form of SQL.
   A) Standard query language
   B) Sequential query language
   C) Structured query language
   D) Server side query language

4. Count function in SQL returns the number of

a) Values

b) Distinct Values
c) Groups
d) Columns

5. To remove a relation from an SQL database, we use the _____ command.
   a) Delete
   b) Purge
   c) Remove
   d) Drop table
6. DELETE FROM r; //r - relation
   This command performs which of the following action?
   a) Remove relation
   b) Clear relation entries
   c) Delete fields
   d) Delete rows
7. Here which of the following displays the unique values of the column?

   SELECT _____ dept_name
   FROM instructor;
   a. All
   b. From
   c. Distinct
   d. Name
8. The _____ clause allows us to select only those rows in the result relation of the ____ clause that satisfy a specified predicate.

   a) Where, from

   b) From, select

   c) Select, from

   d) From, where
9. The _____ clause is used to list the attributes desired in the result of a query.
   a) Where
   b) Select
   c) From
   d) Distinct

10. SELECT * FROM employee WHERE salary>10000 AND dept_id=101;
    Which of the following fields are displayed as output?
    a) Salary, dept_id
    b) Employee
    c) Salary
    d) All the field of employee relation

11. Which of the following statements contains an error?
    a) Select * from emp where empid = 10003;
    b) Select empid from emp where empid = 10006;
    c) Select empid from emp;
    d) Select empid where empid = 1009 and lastname = ‘GELLER’;
12. In the given query which of the keyword has to be inserted?
    INSERT INTO employee _____ (1002,Joey,2000);
    a) Table
    b) Values
    c) Relation
    d) Field
13. SELECT * FROM employee WHERE dept_name="Comp Sci";

    In the SQL given above there is an error . Identify the error.
    a) Dept_name
    b) Employee
    c) “Comp Sci”
    d) From

14. In SQL the spaces at the end of the string are removed by _____ function.
    a) Upper
    b) String
    c) Trim
    d) Lower
15. The union operation is represented by
    a) ∩
    b) U
    c) –
    d) *
16. The union operation automatically _____ unlike the select clause.
    a) Adds tuples
    b) Eliminates unique tuples
    c) Adds common tuples
    d) Eliminates duplicate
17. If we want to retain all duplicates, we must write _____ in place of union.
    a) Union all
    b) Union some
    c) Intersect all
    d) Intersect some
18. The number of attributes in relation is called as its
    a) Cardinality
    b) Degree

c) Tuples
d) Entity

19. _____ clause is an additional filter that is applied to the result.
    a) Select
    b) Group-by
    c) Having
    d) Order by
20. The _____ is essentially used to search for patterns in target string.
    a) Like Predicate
    b) Null Predicate
    c) In Predicate
    d) Out Predicate
21. Which of the following is a valid SQL type?
    (A) CHARACTER
    (B) NUMERIC
    (C) FLOAT
    (D) All of the above
22. The full form of DDL is
    (A Dynamic Data Language
    (B) Detailed Data Language
    (C) Data Definition Language
    (D) Data Derivation Language
23. This key that uniquely identifies each record is called :
    a. Primary Key
    b. Key Record
    c. Unique Key
    d. Field Name
24. The SQL used by front-end application programs to request data from the DBMS is called _____
    a. DML
    b. DDL
    c. VDL
    d. SDL
25. The command used to delete a particular column in a relation is _____
    a. UPDATE TABLE
    b. TRUNCATE COLUMN
    c. ALTER , DROP

d. DELETE COLUMN

26. The database language that allows us to access data in a database is called :
    a. DCL
    b. DML
    c. DDL
    d. None of above
27. Which command is used to select distinct subject (SUB) from the table (BOOK)?
    A) SELECT ALL FROM BOOK
    B) SELECT DISTINCT SUB FROM BOOK
    C) SELECT SUB FROM BOOK
    D) All of the above
28. In SQL, which of the following is not a data definition language commands?
    A) RENAME
    B) REVOKE
    C) GRANT
    D) UPDATE
29. Select a query that retrieves all of the unique countries from the student table?
    A) SELECT DISTINCT coursename FROM studentinfo;
    B) SELECT UNIQUE coursename FROM studentinfo;
    C) SELECT DISTINCT coursename FROM TABLE studentinfo;
    D) SELECT INDIVIDUAL coursename FROM studentinfo;
30. How to Delete records from studentinfo table with name of student 'Hari Prasad'?
    A) DELETE FROM TABLE studentinfo WHERE sname='Hari Prasad';
    B) DELETE FROM studentinfo WHERE sname='Hari Prasad';
    C) DELETE FROM studentinfo WHERE COLUMN sname='Hari Prasad';
    D) DELETE FROM studentinfo WHERE sname LIKE 'Hari Prasad';
31. In SQL, which command is used to remove a stored function from the database?
    A) REMOVE FUNCTION
    B) DELETE FUNCTION
    C) DROP FUNCTION
    D) ERASE FUNCTION
32. Which of the following types of triggers can be fired on DDL operations?
    A) Instead of Trigger
    B) DML Trigger
    C) System Trigger
    D) DDL Trigger
33. What command is used to get back the privileges offered by the GRANT command?
    A) Grant
    B) Revoke

C) Execute
D) Run

34. DROP is a ……. statement in SQL.
    A. Query
    B. Embedded SQL
    C. DDL
    D. DCL
35. The DDL is used to specify the ……..
    A. Conceptual schema
    B. Internal schema
    C. Both
    D. None
36. _____function divides one numeric expression by another and returns the remainder.
    A. POWER
    B. MOD
    C. ROUND
    D. REMAINDER
37. To delete a particular column in a relation the command used is.
    A. UPDATE
    B. DROP
    C. ALTER
    D. DELETE
38. Which of the following aggregate function does not ignore nulls in its results?
    A. COUNT
    B. COUNT(*)
    C. MAX
    D. MIN
39. In SQL, testing whether a subquery is empty is done using
    A. DISTINCT
    B. UNIQUE
    C. NULL
    D. EXISTS
40. Which of the following is not true about the MAX and MIN functions?
    A. Both can be used for any data type.
    B. MAX returns the maximum value.
    C. MIN returns the minimum value.
    D. All are true.

41. Dates must be specified in the format
    a) mm/dd/yy
    b) yyyy/mm/dd
    c) dd/mm/yy
    d) yy/dd/mm

42. The virtual table that its created by data from the result of an SQL 'Select' statement is called _____
    a. View
    b. Synonym
    c. Sequence
    d. Transaction

43. What is the meaning of LIKE '%a%a%'
    a. Features begin with two a's.
    b. Features end with two a's.
    c. Features has more than two a's.
    d. Features has two a's in it, at any position.

44. SELECT *

FROM instructor

ORDER BY salary ____, name ___;

To display the salary from greater to smaller and name in ascending order which of the following options should be used?

    a) Ascending, Descending
    b) Asc, Desc
    c) Desc, Asc
    d) Descending, Ascending

45. _____table store information about database or about the system.
    A) SQL
    B) Nested
    C) System
    D) None of these

46. 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 the above

47. Which SQL keyword must be used to remove duplicate rows from the result relation ?
    a) DELETE

b) DISTINCT
c) NOT EXISTS
d) UNIQUE

48. SQL keyword used to specify the table (s) to be used ?
    a)EXISTS
    b) FROM
    c)SELECT
    d) SET
49. SQL keyword used to implement candidate keys
    a) NOT NULL
    b) CASCADE
    c) UNIQUE
    d) REFERENCE
50. Which keyword is used to determine if a column value is equal to any one of a set of values ?
    a) AND
    b) EXISTS
    c) HAVING
    d) IN

Unit-5: Database Integrity Constraints

1. by including integrity constraints in existing relations we use?
   A. update table
   B. alert table
   C. delete table
   D. create table
2. Which one are not the integrity constraints?
   A. identical
   B. not null
   C. unique
   D. none of these
3. The key is the one in which the primary of one relation is referenced to another relation is called
   A. primary key
   B. foreign key
   C. candidate key
   D. concatenate key

4. Following is the right syntax for assertion?
   A. create assertion ‘predicates’;
   B. create assertion check ‘predicate’ ‘assertion name’;
   C. create ‘assertion-name’ check ‘predicates’;
   D.all of the above
5. Which of the following _____is preferred method for enforcing data integrity?
   A. stored procedure
   B. constraints
   C. cursor
   D. none of these
6. Which of the following command in SQL is used to create a table?
   A. MAKE TABLE
   B. DLETE TABLE
   C. UPDATE TABLE
   D. CREATE TABLE
7. referential integrity constrains are also called?
   A. superset dependencies
   B. subset dependencies
   C. functional dependencies
   D. all of these
8. When a referential integrity constraint is violated, normal procedure is to.
   A. rejection the action
   B. accept the action
   C. both A & B
   D. continue with the flow
9. An SQL standard Allows a clause initially deferred to be added to a
   A. isolation specification
   B. constraint specification
   C. atomicity specification
   D. none of these
10. The following is used to uniquely identifies the element in relation.
    A. secondary key
    B. primary key
    C. candidate key
    D. concatenate key
11. Constraints are the preferred method for enforcing data
    A. data topple
    B. data integrity
    C. data inheritance
    D. none of these

12. The most easily tested constraints of a new data entered is into a database is called?
    A. referential constraints
    B. domain constraints
    C. assertion
    D. none of these
13. Data integrity constraint is used to:
    A. satisfy a condition that duplicate records are not inserted into the table
    B. improve the quality of data entered for a specific property
    C. both A & B
    D. none of these
14. An attribute in one table that references a unique record in another table is called a:
    a. determinant.
    b. foreign key.
    c. referential attribute.
    functional dependency.
15. To include integrity constraint in a existing relation use :
    a. Create table
    b. Modify table
    c. Alter table
    d. None of these
16. Which of the following is not an integrity constraint?
    a) not null
    b) unique
    c) identical
    d) check
17. What is the function of the not null constraint?
    a) It prevents illegal data from being entered into the database
    b) It ensures that data is entered into the database
    c) It ensures that the data entered is unique
    d) None of the mentioned
18. What is the function of the unique constraint?
    a) It ensures that no two values under an attribute are identical
    b) It ensures that all the attributes are perfectly unique in their data type
    c) It ensures that all the relations in the database have a unique set of attributes
    d) It does not have any function in SQL
19. What is the functions of on delete cascade?
    a) It is used to delete a tuple in a table
    b) It is used to specify the precise attribute that needs to be deleted in a single relation.
    c) It is used to preserve referential integrity in a relation
    d) It is used to execute sub-queries in the from clause.

20. What does the following condition do?
    check(name in(‘Ryan’, ‘Cristiano’, ‘Leo’))
    a) The condition checks whether the name attribute includes the three mentioned names
    b) The condition allows the name attribute to possess only the three mentioned names
    c) The condition checks whether the given names are sub-strings in at least one of the values
    d) None of the mentioned
21. _____ is a predicate that we expect the database to always satisfy
    a) Assertion
    b) Reason
    c) Mandate
    d) Verify
22. What statement is used to define a new assertion in SQL?
    a) create check ;
    b) create assertion where ;
    c) create where ;
    d) create assertion check ;

23. To include integrity constraint in an existing relation use :

    A. Modify table
    B. Drop table
    C. Alter table
    D. Create table
24. Which of the following is not an integrity constraint?
    A. Not null
    B. Positive
    C. Unique
    D. Check ‘predicate’
25. Foreign key is the one in which the _____ of one relation is referenced in another relation.
    A. Foreign key
    B. Primary key
    C. References
    D. Check constraint
26. Domain constraints, functional dependency and referential integrity are special forms of _____

    A. Foreign key
    B. Primary key
    C. Assertion
    D. Referential constraint
27. Data integrity control _____.

A. is used to set upper and lower limits on numeric data
B. requires the use of passwords to prohibit unauthorized access to the file
C. has the data dictionary to keep the data and time of last access, last back-up, and most recent modifications for all files
D. none of these

28. The SQL command to create a table is:
    A. Make table
    B. Create table
    C. Define table
    D. Alter table
29. The relationship between the two tables are created using _____
    A. Candidate Key
    B. Primary Key
    C. Foreign Key
    D. Check Constraint
30. Data integrity constraints are used to:
    A. Control who is allowed access to the data
    B. Ensure that duplicate records are not entered into the table
    C. Improve the quality of data entered for a specific property (i.e., table column)
    D. Prevent users from changing the values stored in the table
31. Which of the following statement(s) is/are FALSE about primary key?
    A. There can be more than one primary key for a table
    B. Columns with string data types cannot be made Primary Key because they are large
    C. Both A and B
    D. None of the above
32. Referential triggered action clause in Standard Query Language is attached to constraint called
    A. primary key constraint
    B. stamped key constraint
    C. interval notation constraint
    D. foreign key constraint
33. SQL standard allows a clause initially deferred to be added to a
    A. Uniqueness specification
    B. Atomicity specification
    C. Constraint specification
    D. Isolation specification
34. When a referential-integrity constraint is violated, the normal procedure is to
    A. Continue with flow
    B. Accept the action
    C. Reject the action
    D. Store it for evaluation
35. The most easily tested constraints of a new data entered is into a database is called?
    A. referential constraints
    B. domain constraints
    C. assertion
    D. None of these

36. Constraints are the preferred method for enforcing data
    A. data topple
    B. data integrity
    C. data inheritance
    D. None of the above
37. Establishing limits on allowable property values, and specifying a set of acceptable, predefined options that can be assigned to a property are examples of:

    A. Attributes

    B. Data integrity constraints

    C. Method constraints

    D. Referential integrity constraints

38. _____ is a special type of integrity constraint that relates two relations & maintains consistency across the relations.

    A. Entity Integrity Constraints

    B. Referential Integrity Constraints

    C. Domain Integrity Constraints

    D. Domain Constraints

39. The DROP TABLE statement:
    a. deletes the table structure only.
    b. deletes the table structure along with the table data.
    c. works whether or not referential integrity constraints would be violated.
    d. is not an SQL statement.
40. Drop Table cannot be used to drop a table referenced by a _____ constraint.

    A. Local Key

    B. Primary Key

    C. Composite Key

    D. Foreign Key

41. By default, in SQL a foreign key references the primary key attributes of the
    a. Referencing table
    b. Referenced table
    c. Primary table
    d. Above all table

42. CREATE TABLE Manager(ID NUMERIC,Name VARCHAR(20),budget NUMERIC,Details VARCHAR(30));

Inorder to ensure that the value of budget is non-negative which of the following should be used?
a) Check(budget>0)
b) Check(budget<0)
c) Alter(budget>0)
d) Alter(budget<0)

43. CREATE TABLE course
(. . .
FOREIGN KEY (dept name) REFERENCES department
. . .);
Which of the following is used to delete the entries in the referenced table when the tuple is deleted in course table?
a) Delete
b) Delete cascade
c) Set null
d) All of the mentioned
44. _____refer to the correctness and completeness of the data in a database?
    a. Data independence
    b. Data integrity
    c. Data security
    d. Data constraint
45. Constraints that are applied on individual tuples and are verified whenever any tuple is modified or new tuple is inserted are called

    A. language based constraints
    B. tuple based constraints
    C. scale based constraints
    D. precision based constraints
46. Which of the following is the foreign key constraint?
    a. Referential integrity
    b. Domain integrity
    c. Entity integrity
    d. All of above
47. Which of the following trains are important to select a primary key?
    a. Unique
    b. Not null
    c. Indexed
    d. All of above
48. Which of the following are the types of integrity constraints enfored by RDBMS?
    a. Referential integrity
    b. Domain integrity
    c. Entity integrity
    d. All of above
49. _____ is a condition specified on a database schema and restricts the data that can be stored in aninstance of the database.

    A. Key Constraint

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

50. _____is, a table have more than one set of attributes that could be chosen as the key
A. foreign key
B. integrity key
C. relationship
D. candidate key

Unit-6: Advanced SQL

1. What type of join is needed when you wish to include rows that do not have matching values?
   a) Equi-join
   b) Natural join
   c) Outer join
   d) All of the Mentioned
2. Which join is equivalent to Cartesian Product?
   a) INNER JOIN
   b) OUTER JOIN
   c) CROSS JOIN
   d) NATURAL JOIN
3. Which of the following statements are False?
   a) RIGHT OUTER JOIN is equivalent to LEFT OUTER JOIN if order of tables are reversed
   b) FULL OUTER JOIN is same as CROSS JOIN
   c) SELF JOIN is a special type of OUTER JOIN
   d) Both B and C
4. Which operation are allowed in a join view:
   a) UPDATE
   b) INSERT
   c) DELETE
   d) All of the mentioned

5. Which SQL Join is used for joining the table itself?

   A. Left Join
   B. Self-Join
   C. Natural join
   D. Left Join

6. _____ is the only join which shows the unmatched rows.

   a) Inner Join
   b) Outer Join
   c) Self Join
   d) All above mentioned

7. Which of the following statements is true concerning subqueries?
   a) Involves the use of an inner and outer query
   b) Cannot return the same result as a query that is not a subquery
   c) Does not start with the word SELECT
   d) All of the mentioned
8. Which type of query uses values from the outer query in its WHERE clause?
   a) Join query
   b) Co-related sub- query
   c) DML query
   d) DDL query
9. A _____ is an inner join where the RDBMS automatically selects the join columns based on common columns names.

   A. INNER JOIN
   B. OUTER JOIN
   C. CROSS JOIN
   D. NATURAL JOIN

10. What type of join is needed when you wish to include rows that do have matching values?

    A. Equi-join

    B. Natural join

    C. Outer join

    D. All of the mentioned

11. How many join types in join condition:

    A. 2

    B. 3

    C. 4

    D. 5

12. _____ return all rows from the right table, and the matched rows from the left table.

    A. Left outer join

    B. Right outer join

    C. Full outer join

    D. Cross join

13. In SQL the statement select * from R, S is equivalent to

    A. Select * from R natural join S

    B. Select * from R cross join S

    C. Select * from R union join S

    D. Select * from R inner join S

14. Which one of the following is also known as INNER JOIN?

    (A) Self Join
    (B) Equi Join
    (C) Outer Join
    (D) None of these

15. Which of the following operator is used with NOT EXISTS functions to simulate Outer Join operation

    (A) UNION
    (B) IN
    (C) LIKE
    (D) EXISTS

16. Which of the following join uses maximum resources if there are large tables?

    (A) Left Join
    (B) Right Join
    (C) Cross Join
    (D) Inner Join

17. Inner Joins are the default join type, so which of the following operator can be used for inner join?
    (A) Join
    (B) Outer
    (C) Left
    (D) Right

18. The ON predicate is written like a

A. From clause
B. Select clause
C. Where clause
D. Define clause

19. To specify that a normal join is to be used, a join clause can specify inner join instead of

A. Outer join
B. Natural join
C. Outer right join
D. Outer left join

20. The theta join operation is a variant of the

A. Natural join
B. Compound join
C. Composite join
D. Assignment join

21. 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

22. Which of the following is one of the basic approaches for joining tables?
a) Subqueries
b) Union join
c) Natural Join
d) All of the above

23. The following SQL is which type of join: SELECT CUSTOMER_T. CUSTOMER_ID, ORDER_T. CUSTOMER_ID, NAME, ORDER_ID FROM CUSTOMER_T,ORDER_T WHERE CUSTOMER_T. CUSTOMER_ID = ORDER_T. CUSTOMER_ID
a) Equi Join
b) Natural Join

c) Outer Join
d) Cartesian Join

24. The following SQL is which type of join: SELECT CUSTOMER_T. CUSTOMER_ID, ORDER_T. CUSTOMER_ID, NAME, ORDER_ID FROM CUSTOMER_T,ORDER_T
    a) Equi Join
    b) Natural Join
    c) Outer Join
    d) Cartesian Join
25. Which is a join condition contains an equality operator:
    a) Equi Join
    b) Natural Join
    c) Outer Join
    d) Cartesian Join
26. In precedence of set operators the expression is evaluated from _____.
    a) Left to Right
    b) Right to Left
    c) a) & b)
    d) None of above mentioned
27. What is a view?
    a) A view is a special stored procedure executed when certain event occurs
    b) A view is a virtual table which results of executing a pre-compiled query
    c) A view is a database diagram
    d) None of the Mentioned
28. Syntax for creating views is _____
    a) CREATE VIEW AS SELECT
    b) CREATE VIEW AS UPDATE
    c) DROP VIEW AS SELECT
    d) CREATE VIEW AS UPDATE
29. You can delete a view with _____ command.
    a) DROP VIEW
    b) DELETE VIEW
    c) REMOVE VIEW
    d) TRUNCATE VIEW
30. You can perform _____ operation(s) on SQL Views.
    A. Insert
    B. Update
    C. Delete
    D. All of above

31. A view can refer to multiple tables via _____
    a) UNION
    b) JOIN
    c) GROUP
    d) SELECT
32. What cannot be done on a view?
    a) display
    b) filter
    c) index
    d) drop
33. Which operator is used to compare a value to a specified list of values?

    A. BETWEEN

    B. ANY

    C. IN

    D. ALL

34. The _____ operator is used to compare a value to all values in another value set.

    A. BETWEEN

    B. ANY

    C. IN

    D. ALL

35. The _____ operator is used to search for the presence of a row in a specified table that meets a certain criterion.

    A. EXISTS

    B. ANY

    C. IN

    D. ALL

36. Which one is correct syntax for applying ANY operator?
    a) SELECT column_name(s) FROM table_name WHERE column_name operator ANY (SELECT column_name FROM table_name WHERE condition);

b) ANY SELECT column_name(s) FROM table_name WHERE column_name operator (SELECT column_name FROM table_name WHERE condition);

c) SELECT column_name(s) FROM table_name WHERE column_name ANY

(SELECT column_name FROM table_name WHERE condition);

d) SELECT column_name(s) FROM table_name WHERE column_name ANY operator (SELECT column_name FROM table_name WHERE condition);

37. _____ operator used to reverse the output of the logical operator.

A. NOT

B. NO

C. IN

D. ALL

38. _____ operator reduce the need for multiple OR conditions in a SQL query.

A. EXISTS

B. ANY

C. IN

D. ALL

39. In case of full outer join Nulls are added to the unmatched rows on the following

(A) both sides

(B) left side

(C) right side

(D) None of above

40. Which clause is used to combine rows from two or more tables based on a related column between them.
A. SQL MATCH
B. SQL JOIN
C. SQL PATTERN
D. NONE

41. 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.
42. Which one is correct syntax for Self Join? (*T1* and *T2* are different table aliases for the same table.)
    a) SELECT *column_name(s)* FROM *table1 T1, table1 T2* WHERE *condition*;
    b) SELECT *column_name(s)* FROM *table1 T1 AND table1 T2* WHERE *condition*;
    c) SELECT *column_name(s) table1 T1,* FROM *table1 T2* WHERE *condition*;
    d) SELECT *column_name(s)* FROM *table1 T1 table1 T2* WHERE *condition*;

43. The _____ operator is a shorthand for multiple OR conditions.
    a) IN
    b) ALL
    c) ANY
    d) EXISTS
44. Which operator can not be used with ANY operator in SQL?
    a) <>
    b) !=,
    c) >
    d) OR

45. Which join is to be used between two tables A and B when the resultant table needs rows from A and B that matches the condition and rows from A that does not match the condition?

    A. Outer Join
    B. Cross Join
    C. Inner Join
    D. None of the above
46. _____ only retrieves those rows from Cartesian Product that satisfy the JOIN condition

    A. Outer Join
    B. Cross Join
    C. Inner Join
    D. Self Join

47. SQL Server has mainly how many types of views?
    a) one
    b) two
    c) three
    d) four
48. In which case would you use a FULL OUTER JOIN?

A) Both tables have NULL values.
B) You want all unmatched data from one table.
C) You want all matched data from both tables.
D) You want all matched and unmatched data from both tables.

49. There are two table

Orders (Order_no, Cust, Prodt, Qty, Amt, Discount)

Customers (Custnbr, Company, Custrep, Creditlim)

Print all the orders showing order number, amount, company name and credit limit of customers.

A)Select Order_no, Amt, Company, Creditlim from Customers outer join Orders on customers.custnbr = orders.cust;
B) Select Order_no, Amt, Company, Creditlim from Customers left outer join Orders on customers.custnbr = orders.cust;
C) Select Order_no, Amt, Company, Creditlim from Customers inner join Orders on customers.custnbr = orders.cust;
D) Select Order_no, Amt, Company, Creditlim from Customers right outer join Orders on customers.custnbr = orders.cust;

50. There are two table:
Customers (Custnbr, Company, Custrep, Creditlim)

Orders table (Order_no, Cust, Prodt, Qty, Amt, Discount)

Find all the customers with orders more than 500 or credit limits greater than or equal to 500.

A) Select distinct Custnbr from Customers Right JOIN Orders on Custnbr = Cust where (Creditlim >= 500 OR Amt > 500)
B) Select distinct Custnbr from Customers LEFT JOIN Orders on Custnbr = Cust where Creditlim > 500 OR Amt >= 500)
C) Select distinct Custnbr from Customers LEFT JOIN Orders on Custnbr = Cust where (Creditlim >= 500 OR Amt > 500)
D) None of above