MULTIPLE CHOICE QUESTIONS IN DBMS (unit-1 to unit-4)

1) ER model is used in _____ phase
a) conceptual database b) schema refinement
c) physical refinement d) applications and security

2) The ER model is relevant to which of the following steps among the 6 steps in database
a) requirement analysis b) conceptual database design
c) logic database design d) all the above

3) Which of the following statements are correct?
i) an entity is an object to the real world ii) entity is described using attributes
iii) attributes are described using entity iv) each attribute must identify a domain
v) we can have more than 1 candidate key
a) i,iii,v b) ii,iv c) i,iii,iv d) i,ii,iv,v

4) An instance is _____
a) a set of relationships b) set of attributes
c) set of entites d) schema

5) The entity set that participates in a relationship are
a) distinct b) need not be distinct
c) may or may not be distinct d) none

6) The owner entity set and weak entity set should participate in
a) many to many relationship set b) many to one relationship set
c) one to many relationship set d) one to one relationship set

7) The language used application programs to request data from the DBMS is referred to as the
a) DML b) DDL
c) query language d) none

8) 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

9) Which of the following levels of abstraction involves the views of data?
a) external level b) conceptual level c) physical level d) none

10) The hierarchical DBMS organizes data elements into:
a) segments b) data compartments. c) data units. d) objects

11) A collection of operations that performs a single logic function is called
a) schedule b) transaction c) DBA d) none of the above

12) Large collection of files are called
a) fields b) records
c) database d) sectors

13) What is not a feature of Hierarchical model
a) Child having a parent b) Parent having parent
c) Parent may have any number of Childs d) Child having more than one parent

14) The relational database environment has all of the following components except
a) users **b) separate files**
c) database d) query languages

15) The language associated with a database management system that is employed by end users and programmers to manipulate data in the database is the:
a) data definition language. b) data presentation language.
c) Data manipulation language. d) data translation language.

16) The ascending order of a data hirerchy is:
a) bit-byte-record-field-file-database b) byte-bit-field-record-file-database
c) bit-byte-field-record-file-database d) bit-byte-file-record-field-database

17) The type of the datastrucure that is used in relational model is

a) Table b) Tree c) Node d) None of the above

18) The situation that occurs when different divisions, functional areas, and groups in an organization independently collect the same piece of information best describes:
a) Program-data independence. b) Data redundancy.
c) Lack of flexibility. d) Poor security.

19) _____ is a 'thing' in the real world with an independent existence.
a) Entity b) Attribute
c) Key d) Relationship

20) An association among two or more entities is called _____
a) Entity Type b) Relationship
c) Relationship Type d) none

21) A table
a) Cannot be empty b) consists of rows and columns
c) Consists of Alphanumeric data d) can only store data of one type.

22) The users who use the database by writing special database application programs are called
a) Sophisticated user b) Specialized user
c) Naïve user d) Native user

23) The person who is having centra control over data and programs accessing that data
a) DBA b) Database Designer c) Developer d) none

24) The persons who interact with the system through DML calls embedded in a program written in host language
a) System developers b) System analysts
c) DBA d) Application Programmers

25) Which view is normally more stable
a) internal level b) external level
c) conceptual level d) view level

26) The following is a restricted view of databse
a) internal level b) external level
c) conceptual level d) physical level

27) The ability to modify the internal schema without causing any change to the external schema
a) Physical data independence b) Logical Data independence
c) External Data independence d) none

28) The ability to modify the conceptual schema without causing any change to the application program
a) Physical data independence b) Logical Data independence
c) External Data independence d) none

29) The information about data in a databse is called _____
a) Meta data b) Tera data
c) hyper data d) none

30) In relational terminology, an attribute is
a) a record b) an entity
c) a field d) a table

31) Which of the following features is supported in the relational database model?
a. Complex data types b. Multi-valued attributes
c. Associations with multiplicities d. Generalization relationships

32) Which of the following is the most likely prediction of future database systems?
a. Relational technology will be replaced by object-oriented technology.
b. Relational technology will be extended to include object-oriented features.
c. Relational technology will dominate without use of object-oriented features.
d. Relational and object-oriented technologies will both be replaced with hierarchical data models.

33) The links between rows of a master table and those of a nested table are maintained using:
a. pointers. b. foreign keys. c. determinants. d. clusters.

34) A relational database data is organized as (check only one)

a. elements. b. a collection of records.
c. tables. d. a collection of common fields.

35) A tuple is also known as a(n) _____ .
a. table b. relation
c. row d. field

36. An attribute is also known as a(n) .
a.) table b.) relation
c.) row d.) field

37) A field, or a combination of fields, that has a unique value is a (check only one)
a) secondary key. b) foreign key.
c) primary key. d) alternate key.

38) A foreign key must (check only one)
a) be defined in all tables in the database. b) be numeric.
c. match the field value of a primary key in a related table. d. be unique.

39) This Relational Algebra operation requires two tables as input and the two tables must have one common column
a) RESTRICTION b) JOIN c) DIVISION
d) CARTESIAN PRODUCT (MULTIPLICATION) e) PROJECTION

40) Combination of one or more columns used to identify particular rows in a relation is a(n) _____ .
a.) record b.) field
c.) key d.) tuple e.) dependency

41) A combination of two or more columns used to identify particular rows in a relation is a(n) _____ .
a.) record b.) field
c.) composite key d.) foreign key e.) surrogate key

42) An attribute (or combination of attributes) used strictly for data retrieval purposes is called a (check only one)
a. superkey b. candidate key
c. secondary key d. primary key

43) The _____ constraints can be applied only at column level.
(a) Primary key (b) Foreign key
(c) Unique (d) None

44) Which of the following is a group of one or more attributes that uniquely identifies a row?
A) Key B) Dependent
C) Determinant D) Relation

45) Which SQL keyword must be used to remove duplicate rows from the result relation ?
a) DELETE b) DISTINCT
c) NOT EXISTS d) UNIQUE

46) SQL keyword used to state the condition that specifies which rows are to be selected ?
a) EXISTS b) FROM c) SELECT d) SET

47) SQL keyword used to specify the table (s) to be used ?
a) EXISTS b) FROM c) SELECT d) SET

48) SQL keyword used to implement candidate keys
a) NOT NULL b) CASCADE c) UNIQUE d) REFERENCE

49) 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

50) Three DDL commands:
a) CREATE, ALTER, DELETE b) INSERT, UPDATE, DELETE
c) CREATE, UPDATE, DROP d) CREATE, ALTER, DROP

51) Referential integrity controls relationships between:
a. attributes in a table. b. operations of an object.
c. instances of a class. d. tables in a database.

52) Referential integrity dictates that:
a. the value of a primary key must appear in a foreign key of the related table.

b. the value of a foreign key must appear in a primary key of the related table.
c. the value of a primary key cannot appear in a foreign key of the related table.
d. the value of a foreign key cannot appear in a primary key of the related table.

53) Four DML commands
a) CREATE, UPDATE, DELETE, SELECT
b) INSERT, UPDATE, DROP, SELECT
c) CREATE, ALTER, DELETE, SELECT
d) INSERT, MODIFY, DELETE, SELECT
e) INSERT, UPDATE, DELETE, SELECT

54) _____ character is a symbol that can be used as a general substitute for other characters or commands.
A: important B: wildcard C: any D: none of the above

55) An _____ is an alternate name given to column or table in any SQL statement.
A: Another name B: Alias C: Field D: Row

56) which of the following is not a valid aggregate function?
A: COUNT B: COMPUTE C: SUM D: MAX

57) Use the _____ clause to restrict groups returned by a grouped query.
A: WHERE B: DISTINCT C: HAVING D: UNIQUEROWS

58) Which SQL keyword is used to return only different values?
A: COUNT B: NOSAME C: GROUP D: DISTINCT

59) A relation is a(n) :
a. association between objects.
b. dependency between attributes.
c. pointer from one row to another in a table.
d. named table of data.

60) Which of the following is NOT a requirement for a table to be a relation?
a. The sequence of rows and columns cannot be modified.
b. The table must have a primary key.
c. Attributes must contain atomic data.
d. Entries in a column come from common data source.

61) A relation containing minimum data redundancy and allowing insertion, deletion, and modification of rows without introducing data inconsistencies is considered to be:
a. generalized. b. well-structured. c. unified. d. referential.

62) Which of the following factors indicates that a table is not well-structured?
a. It contains multiple foreign keys.
b. The primary key consists of more than one attribute.
c. The data in the table represents more than one entity.
d. Referential integrity is violated when attempting to enter data.

63) Which SQL command would you use to define the primary key for a new table called 'Employee' with the primary column to be 'empid'?
A: ADD TABLE Employee ADD PRIMARY KEY (empid)
B: ATTACH TABLE Employee ADD PRIMARY KEY (empid)
C: ADD TABLE Employee ATTACH PRIMARY KEY (empid)
D: ALTER TABLE Employee ADD PRIMARY KEY (empid)

64) The 'NULL' represents
A: 0 B: blank space C: absence of any value D: none of the above

65) Which SQL keyword is used to sort the result?
A: ORDER B: SORT-ORDER C: SORT D: ORDER BY

66) To change the value of a customer's discount from 3 to 5, what command do we need to use:
a) INSERT b) SELECT c) DELETE d) UPDATE.

67) The WHERE keyword comes before the condition in a normal Select query. When using the command GROUP BY in the Select query, what keyword is used to start the condition section ?
A) Having B) Find C) Order D) Provide

68) The term first normal form (1NF) describes the tabular format in which (check only one)
a. all the key attributes are defined
b. there are no repeating groups in the table. Row/column intersection can contain one and only one value,

not a set of values.
c. all attributes are dependent on the primary key.
d. all of the above.

69) The referential integrity rule requires that (check only one) :
a. it makes it possible for an attribute to have a corresponding value.
b. every null foreign key value must reference an existing primary key value.
c. every non-null foreign key value must reference an existing primary key value
d. it makes it possible to delete a row in one table whose primary key does not have a matching foreign key value in another table.

70) A table that is in 2NF and contains no transitive dependencies is said to be in (check only one)
a. 1NF. b. 2NF. c. 3NF. d. 4NF.

71) An entity is in second normal form if:
A. all the values of nonprimary keys are dependent on the full primary key.
B. any nonkey attributes that are dependent on only part of the primary key should be moved to any entity where that partial key is the actual full key.
C. it must already be in first normal form.
D. all of the above.

72) A functional dependency is a relationship between or among:
A) Tables B) Relations C) Rows D) Attributes

73) A table with a _____ cannot exhibit partial dependencies.
A: two rows B: single-attribute C: three columns D: none of the above

74) Denormalization produces a _____ normal form.
A: higher B: upper C: slower D: lower

75) Higher normal forms are better than lower normal forms because higher normal forms yield fewer _____ _____ in the database.
A: update, delete B: data storage C: data redundancies D: none of the above

76) The 2NF describes the tabular format in which:
A: there are no repeating groups in the table
B: all attributes are dependent on the primary key
C: A & B with no partial dependency
D: there is no partial dependency

77) The process of converting complex object data structures into well-structured relations is called:
a. object-relational modeling. b. normalization.
c. referential integrity. d. determinant analysis.

78) A relation is considered to be in second normal form if it is in first normal form and it has no _____ dependencies.
a. referential b. functional c. partial key d. transitive

79) A minimal of attribute set to be candidate key if
a. One of the key may also be a candidate key.
b. X is a subset of super key and it should not represent any subset of keys as candidate key
c. A minimal set which uniquely determines an entity
d. It is a super key

80) If one attribute is a determinant of a second, which in turn is a determinant of a third, then the relation cannot be:
a. well-structured. b. in 1NF. c. in 2NF. d. in 3NF.

81) An attribute in one table that references a unique record in another table is called a:
a. determinant. b. foreign key. c. referential attribute. d.functional dependency.

82) The essential characteristic of_____ normal form is that every determinant in the table must be a candidate key.
a. Boyce Codd b. Domain Key c. Fourth d. Fifth

83) **LIKE** operator performs pattern matching.

84) **`/`** command displays the SQL command in the SQL buffer, and then executes it?

1. What is Data Model?

A collection of conceptual tools for describing data, data relationships data semantics and constraints.

2. What is E-R model?

This data model is based on real world that consists of basic objects called entities and of relationship among these objects. Entities are described in a database by a set of attributes.

3. What is an Entity?

It is a 'thing' in the real world with an independent existence.

4. What is an Entity type?

It is a collection (set) of entities that have same attributes.

5.What is an Entity set?

It is a collection of all entities of particular entity type in the database

6. What is Weak Entity set?

An entity set may not have sufficient attributes to form a primary key, and its primary key compromises of its partial key and primary key of its parent entity, then it is said to be Weak Entity set.

7. What is an attribute?

It is a particular property, which describes the entity.

8. What is degree of a Relation?

It is the number of attribute of its relation schema.

9. What is Relationship?

It is an association among two or more entities.

10. What is Relationship set?

The collection (or set) of similar relationships.

11. What is Relationship type?

Relationship type defines a set of associations or a relationship set among a given set of entity types.

12. What is degree of Relationship type?

It is the number of entity type participating.

13. What is DDL (Data Definition Language)?

A data base schema is specifies by a set of definitions expressed by a special language called DDL