Some Important Theory Question from 1st and 2nd unit

1. What is DBMS? List four significant differences between file processing system and a DBMS?
2. What is relation? Differentiate between a relation and a relation schema. Define the term arity of a relation.
3. Describe the six steps in detail about data base design ?
4. Explain Foreign key constraint in detail ?
5. Explain any four fundamental operations in relational algebra with examples.
6. What are five main functions of a database administrator?
7. Explain with an example about aggregate operators.
8. Compare between super key, Candidate key, primary key for a relation with examples.
9. Explain Data models ?
10. Explain structure of DBMS with diagram
11. What are five main functions of a database administrator?
12. Explain with an example about aggregate operators.
13. Explain about Specialization and Generalization.
14. a) **Consider** the following schema to write queries in Relation algebra:

    Sailor (Sid, sname, age, rating), Boats (bid, bname, bcolor), Reserves (Sid, bid, day)

    i) Write the syntax for reserves relation ?.

    ii) Display bid of all 'red' boats.

    iii) Find the sids's of sailors whose rating is greater than 7 ?.

    b) **Explain** the syntax for modifying a relation using sql?

Some Important Bit Question from 1st and 2nd unit

1. The SQL statement that is used to change the definition of a table is [   ]
   A)   AlterB) Update   C) Select   D) Create

2. Which of the following operation is used for retrieving certain columns of a table?
   a.   A) JOIN   B) SELECTION   C) PROJECTION   D) UNION [   ]

3. DBA stands for   [   ]
   a.   A) Database administrator   B) Database analyst
   b.   C) Database application   D) Database architecture

4. Data about data is normally termed as   [   ]
   a.   A) directory   B) data bank   C) meta data   D) none   of the above

5. Full form of DDL is   [   ]
   a.   A) Data definition language B) Data difference language C) Data demand language   D)All the mentioned

6. Which of the following creates a virtual relation for storing the query?[   ]
   A) Function   B) View   C) Procedure   D) None of the mentioned

7. A relational database consists of a collection of   [   ]
   A) Tables   B) Fields   C) Records   D) Keys

8. Course (course_id,sec_id,semester), Here the course_id,sec_id and semester are _____ and course is a _____
    [   ]
    A) Relations, Attribute   B) Attributes, Relation
    C) Tuple, Relation   D) Tuple, Attributes
9. The tuples of the relations can be of _____ order.   [   ]
    A) Any   B) Same   C) Sorted   D) Constant
10. _____ 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
11. The ellipse represents in E-R model is _____.

12. A relationship with an entity and relationship can be made using _____

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

14. _____key is used to represent relationship between tables.

15. A minimal set of attributes that is used to uniquely identify a tuple in relation is called _____ key.

16. The arity of the relation is also called as _____.

17. A primary key cannot contain _____ and _____

18. The operator that is used for pattern matching in SQL is _____.

19. Relational Algebra is aone of the two formal query language that takes two relations as a input and produces another
    _____ as an output of the query.

20. 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_____

21. The rectangle represents in E-R model is _____.

22. A relationship with in only one entity is _____.

23. The degree of the relation is also called as _____.

24. . In relational algebra cross product is also called as _____.

25. What is the full form of DBMS?
26. Which type of data can be stored in the database?
27. In which of the following formats data is stored in the database management system?
28. Which of the following is not a type of database?
    a) Hierarchical
    b) Network
    c) Distributed
    d) Decentralized
29. Which of the following is not an example of DBMS?
    a) MySQL
    b) Microsoft Acess
    c) IBM DB2
    d) Google
30. Which of the following is not a function of the database?
    a) Managing stored data
    b) Manipulating data
    c) Security for stored data
    d) Analysing code

31. Which of the following is a function of the DBMS?
    a) Storing data
    b) Providing multi-users access control
    c) Data Integrity
    d) All of the above
32. Which of the following is a component of the DBMS?
    a) Data
    b) Data Languages
    c) Data Manager
    d) All of the above
33. Which of the following is known as a set of entities of the same type that share same properties, or attributes?
    a) Relation set
    b) Tuples
    c) Entity set
    d) Entity Relation model
34. What is information about data called?
    a) Hyper data
    b) Tera data
    c) Meta data
    d) Relations
35. . The values appearing in given attributes of any tuple in the referencing relation must likewise occur in specified attributes of at least one tuple in the referenced relation, according to _____ integrity constraint.
    a) Referential
    b) Primary
    c) Referencing(foreign key)
    d) Specific
36. _____ is a hardware component that is most important for the operation of a database management system.
    a) Microphone
    b) High speed, large capacity disk to store data
    c) High-resolution video display
    d) Printer
37. The DBMS acts as an interface between _____ and _____ of an enterprise-class system.
    a) Data and the DBMS
    b) Application and SQL
    c) Database application and the database
    d) The user and the software
38. The ability to query data, as well as insert, delete, and alter tuples, is offered by _____
    a) TCL (Transaction Control Language)
    b) DCL (Data Control Language)
    c) DDL (Data Definition Langauge)
    d) DML (Data Manipulation Langauge)
39. _____ is a set of one or more attributes taken collectively to uniquely identify a record.
    a) Primary Key
    b) Foreign key
    c) Super key
    d) Candidate key
40. Which command is used to remove a relation from an SQL?
    a) Drop table
    b) Delete
    c) Purge
    d) Remove
41. Which of the following command is correct to delete the values in the relation teaches?
    a) Delete from teaches;
    b) Delete from teaches where Id ='Null';

c) Remove table teaches;
d) Drop table teaches;

42. What do you mean by one to many relationships?
    a. One class may have many teachers
    b. One teacher can have many classes
    c. Many classes may have many teachers
    d. Many teachers may have many classes

43. Which of the following command is a type of Data Definition language command?
    a. Create
    b. Update
    c. Delete
    d. Merge

44. In which one of the following, the multiple lower entities are grouped (or combined) together to form a single higher-level entity?
    a. Specialization
    b. Generalization
    c. Aggregation
    d. None of the above

45. In a relation database, every tuples divided into the fields are known as the_____.
    a. Queries
    b. Domains
    c. Relations
    d. All of the above

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