Chapter 8. Database Concepts

1. What is a primary key?

a) A column that can have duplicate values.

b) A column that uniquely identifies each row in a table.

c) A column that can store null values.

d) A column that is automatically updated by the database.

2. What is a foreign key?

a) A key that represents a database user's password.

b) A key that links two tables together based on a common attribute.

c) A key that defines the data type of a column.

d) A key that is used to delete rows in a table.

3. Which of the following is an advantage of using a database management system (DBMS)?

a) Reduced data redundancy. b) Increased data inconsistency.

c) Simplified data duplication. d) Limited data accessibility.

4. What does SQL stand for?

a) Structured Query Language. b) Simple Query Language.

c) Standard Query Language. d) System Query Language.

5. Which SQL statement is used to retrieve data from a database?

a) UPDATE b) DELETE **c) SELECT** d) INSERT

6. Which SQL statement is used to add a new record in a table?

a) UPDATE b) DELETE c) SELECT **d) INSERT**

7. What is a database constraint?

a) A rule that restricts the data that can be stored in a column.

b) A type of data stored in a table.

c) A process for updating data in a database.

d) A type of database user.

8. What is normalization in database design?

a) A process of adding duplicate data.

b) A process of organizing data to reduce redundancy and improve data integrity.

c) A process of making data more complex.

d) A process of storing data in a single table.

9. Which SQL statement is used to modify data in a table?

a) INSERT b) DELETE **c) UPDATE** d) SELECT

10. What is a relation in a relational database?

a) A type of database user. **b) A table.**

c) A database constraint. d) A SQL statement.

11. Which of the following constraint ignores NULL value?

a) UNIQUE **b) FOREIGN** c) CHECK d) All of above

12. Which is the correct difference between Primary key and foreign key?

a) A table can have multiple primary key and single foreign key

b) A primary key cannot ignore NULL value but Foreign key can

c) A Primary key can have duplicate data but foreign key does not

d) None of the above

13. Which one of the following refers to the copies of the same data (or information) occupying the memory space at multiple places?
a. Data Repository b. Data Inconsistency c. Data Mining **d. Data Redundancy**

14. Which of the following refers to the number of attributes in a relation?
a. Degree b. Row c. Column d. All of the above

15. Consider attributes ID, CITY, and NAME. Which one of these can be considered as a primary key?
a. NAME **b. ID** c. CITY d. CITY, ID

16. Which of the following is considered as DBMS?
a. Access b. Oracle c. SQL Server **d. All of these**

17. What will be cardinality and degree for the given table 'coach'?

Coachid	Coachname	Age	Sport	Dateofapp	Pay	Gender
1	Karan	35	Karate	27/03/19	10000	M
2	Ravina	34	Karate	20/01/20	12000	F
3	Kamal	34	Squash	19/02/20	20000	M
4	Tarun	33	Basketball	01/01/20	15000	M
5	Sumeru	36	Swimming	12/01/20	7500	M
6	Anjani	36	Swimming	24/02/20	8000	F
7	Shamima	37	Squash	20/02/20	22000	F
8	Soumya	30	Karate	22/02/20	11000	F

a. cardinality = 7, degree = 8 b. cardinality = 9, degree = 8
c. cardinality = 7, degree = 56 **d. cardinality = 8, degree = 7**

18. If the degree of a relation is 4, that means the relation has:
a. 4 tuples **b. 4 attributes** c. 4 states d. 4 relations

19. Relational model was developed by:
a. E. F Codd b. Richard Stallman c. Guido Von Rossum d. John Von Neumann

20. What is a relational database?
a) A collection of attributes **b) A collection of tables**
c) A collection of records d) A collection of fields

21. Which key refers to the primary key of another table?
a) Alternate Key b) Primary Key **c) Foreign Key** d) Composite Key

22. What is data redundancy?
a) Duplication of data b) Inconsistency of data
c) Data integrity d) Data normalization

23. Which constraint ensures that a column cannot have a NULL value?
a) UNIQUE b) CHECK **c) NOT NULL** d) DEFAULT

24. What is the default date format in SQL?
a) DD-MM-YY b) MM-DD-YY **c) YYYY-MM-DD** d) DD-MM-YYYY

25. Which of the following is not a type of database?
a) Relational b) Network c) Hierarchical **d) Linear**

26. What does DBMS stand for?
a) Data Backup Management System **b) Database Management System**
c) Database Maintenance System d) Data Base Modular System

27. Which of the following is used to uniquely identify a record in a table?
a) Foreign key **b) Primary key** c) Unique key d) Candidate key

29. In a relational database, a table is also known as a:
a) Column b) Record c) Field **d) Relation**

30. Data is a collection of _____ facts which have not been processed to reveal useful information.
a) Raw facts b) Processed facts c) Information d) None of the above

31. A _____ is a collection of programs that enables users to create, maintain, and use a database.
a) Database Management System b) Database Management Software
c) Database System d) None of the above

32. Which of the following is a valid SQL data type?
a) CHARACTER b) NUMERIC c) FLOAT **d) All of the above**

33. Which of the following is NOT a DDL (Data Definition Language) command?
a) CREATE b) ALTER **c) UPDATE** d) DROP

34. A _____ key is a field in a table that uniquely identifies each row/record in that table.
a) Primary b) Foreign c) Candidate d) Composite

36. In a relational database, data is stored in the form of:
a) Attributes **b) Tables** c) Records d) Fields

37. Which of the following is NOT a characteristic of a Database Management System?
a) Self-describing nature b) Insulation between programs and data
c) Data redundancy d) Sharing of data

38. A multi-user environment allows multiple users to access the database simultaneously; it means:
a) Sharing of data b) Insulation between program and data
c) Self-describing nature of database system d) None of the above

39. The SQL command used to remove a table from a database is:
a) DELETE b) REMOVE **c) DROP** d) TRUNCATE

40. A relational database is a collection of:
a) Attributes **b) Tables** c) Records d) Fields

41. What is the purpose of normalization in a database?
a) To eliminate data redundancy b) To increase data redundancy
c) To improve data security d) To enhance data retrieval speed

42. Which of the following is not a type of key in a relational database?
a) Primary Key b) Foreign Key c) Super Key **d) Index Key**

43. Which of the following is a DDL command?
a) SELECT b) INSERT **c) CREATE** d) UPDATE

44. Which SQL clause is used to filter records?
a) WHERE b) HAVING c) GROUP BY d) ORDER BY

45. Which of the following is a type of relationship in a relational database?
a) One-to-One b) One-to-Many c) Many-to-Many **d) All of the above**

46. What is a database?
a) A collection of interrelated data b) A collection of unrelated data
c) A collection of files d) A collection of programs

47. Which of the following is a characteristic of a Database Management System (DBMS)?
a) Data redundancy b) Data inconsistency
c) Data independence d) Data isolation

48. Which of the following is not a type of database model?
a) Hierarchical model b) Network model
c) Relational model **d) Sequential model**

52. Which of the following is a property of a relational database?
a) Data is stored in tables b) Data is stored in files
c) Data is stored in objects d) Data is stored in arrays

53. In a database, a single row in a table is known as a:
a) Field **b) Record** c) Attribute d) Column

54. Which of the following is a valid SQL command to create a table?
a) MAKE TABLE b) NEW TABLE
c) CREATE TABLE d) BUILD TABLE

55. Which of the following is used to organize and store data in a structured format?
a) Data mining **b) Database Management System (DBMS)**
c) Data encryption d) Data analysis

56. A database management system is a _____ type of software.
a) System software **b) Application software**
c) General software d) Both a and c

57. Which of the following refers to the number of tuples on a relation?
a) Entity b) Column c) **Cardinality** d) None of the above.

58. In a relation, which of the following refers to the term attribute?
a) Entity b) Row c) **Column** d) Both b and c

59. _____ is used to represent the relationship between tables.
a) Primary key **b) Foreign key** c) Unique Key d) Candidate Key

60. Order(order_id, ccode, total) here the order_id, ccode and total are ___ and order is
a) relation, attribute **b) attribute, relation**
c) degree, relation d) relation, tuple

61. Before DBMS information was stored using____
a) Data System b) Memory System **c) File System** d) Drive

62. Storing records using DBMS helps in
a) Eliminates data redundancy b) Maintain data consistency
c) Controlled data sharing. **d) All of the above**

63. Which of the following is a real life application of DBMS?
a) Inventory Management b) Banking c) Online Shopping **d. All of the above**

64. Database schema refers to
a) table name and their fields b) relationship among tables
c) data stored in tables d) **a and b**

65. When we define database schema, database state is
a) **0** b) 1 c) NULL d) Equal to degree

66. In which of the following case NULL value cannot be assigned to the column ROLLNO
a) When ROLLNO is zero. b) When ROLLNO is not known.
c) When ROLLNO is not available. d) When ROLLNO is not applicable.

67. _____ is used to get common tuples from two tables.
a) minus b) union c) Cartesian product d) **intersection**

68._____ is a request to the database for obtaining information in a desired way.
a) Table b) **Query** c) Report d) Hosting

69. Which of the following represent a valid file system to store records?
a) Access b) MySQL **c) CSV files** d) All of the above

70. Restriction on the type of data that can be inserted into the table is
a. Database Schema b. Database instance **c. Database constraint** d. Database key

71. What happens if same data is repeated in different places?
a) Data redundancy b) Data inconsistency c) Data isolation d) Data dependence

72. If name is maintained twice in a file, it is known as ____
a) Data dependence b) Data inconsistency c) Data isolation **d) Data redundancy**

73. What situation occurs when same data maintained in different places do not match?
a) Data redundancy **b) Data inconsistency** c) Data isolation d) Data dependence

74. The link between two related files is known as _____.
a) Data hyperlinking b) **Data mapping** c) Data isolation d) Data dependence

75. The feature of updating the structure of a data file requires modification in all the application programs accessing that file.
a) Data redundancy b) Data inconsistency c) Data isolation **d) Data dependence**

76. If not every user should be able to access all the data.
a) Data redundancy b) Data inconsistency **c) Controlled Data Sharing** d) Data isolation

77. Expand DBMS.
a) Database Management System b) Database Management System
c) Database Manage System d) Database Management Security