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**IFTM University, Moradabad, Uttar Pradesh**

**NAAC ACCREDITED**

# E-Content

## IFTM University, Moradabad

## DBMS MCQs

### UNIT-1

1. Entity is a \_\_\_\_\_
  - a) Relation
  - b) Present working model
  - c) Real world object or concept
  - d) Model of relation

Ans-c
2. The relationship set in E-R diagram is represented as
  - a) Double diamonds
  - b) Undivided rectangles
  - c) Dashed lines
  - d) Diamond

Ans-d
3. Property possessed by each entity set is \_\_\_\_\_
  - a) Entity
  - b) Attribute
  - c) Relation
  - d) Model

Ans-b
4. The attribute AGE is calculated from DATE\_OF\_BIRTH. The attribute AGE is
  - a) Single valued
  - b) Multi valued
  - c) Composite
  - d) Derived

Ans-d
5. Which of the following can be a multivalued attribute?
  - a) Phone\_number
  - b) Name
  - c) Date\_of\_birth
  - d) All of the mentioned

Ans-a
6. Which of the following is a single valued attribute
  - a) Registration\_number
  - b) Address
  - c) SUBJECT\_TAKEN
  - d) All of the above

Ans-a
7. 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

Ans-c
8. Weak entity set is represented as
  - a) Underline
  - b) Double line
  - c) Double diamond
  - d) Double rectangle

Ans-d

9. 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

Ans-b

10. 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

Ans-d

11. ....defines the structure of a relation.
- A) Instance
  - B) Schema
  - C) Program
  - D) Super Key

Ans-b

12. 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

Ans-b

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

Ans-C

14. .... command can be used to modify a column in a table
- A. alter
  - B. update
  - C. set
  - D. create

Ans-A

15. DCL stands for
- A) Data Control Language
  - B) Data Console Language
  - C) Data Console Level
  - D) Data Control Level

Ans-A

16. The database schema is written in
- A. HLL
  - B. DML
  - C. DDL
  - D. DCL

Ans-C

17. Which of the following are the properties of entities?

- A. Groups
- B. Table
- C. Attributes
- D. Switchboards

Ans-C

18. Which database level is closest to the users?

- A. External
- B. Internal
- C. Physical
- D. Conceptual

Ans-A

19. Which of the following is/are the DDL statements?

- A) Create
- B) Drop
- C) Alter
- D) All of the above

Ans-D

20. Data Manipulation Language enables users to

- a) Retrieval of information stored in database
- b) Insertion of new information into the database
- c) Deletion of information from the database
- d) All of the above

Ans-d

21. What do you mean by one-to-many relationship between Teacher and Class table?

- 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

Ans-b

22. Architecture of the database can be viewed as

- a) Two Level
- b) Three Level
- c) Four Level
- d) One Level

Ans-b

23. An advantage of the database management approach is

- A. Data is dependent on programs
- B. Data redundancy increases.
- C. Data is integrated and can be accessed by multiple programs.
- D. None of the above

Ans-c

24. DBMS helps achieve

- A. Data independence
- B. Centralized control of data
- C. Control redundancy
- D. All of above

Ans-d

25. Which command is used to create a new relation in SQL :

- a) create table( , ...)
- b) create relation( , ...)
- c) new table( , ...)
- d) new relation( , ...)

Ans-a

## Unit-2

26. Which is the preferred method for enforcing data integrity

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

Ans-A

27. The number of tuples in a relation is called its .....

- A) Degree,
- B) Cardinality
- C) Rows
- D) Columns

Ans-B

28. The number of attributes in a relation is called it's .....

- A) Cardinality
- B) Degree
- C) Columns
- D) Rows

Ans-B

29. Which refers to the accuracy and completeness of the data in a database?

- a. Data security
- b. Data integrity
- c. Data constraint
- d. Data independence

Ans-B

30. Which of the following is not an integrity constraint?

- a) Not null
- b) Positive
- c) Unique
- d) Default

Ans-b

31. 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

Ans-b

32.

Roll_no	Name	Address
153	Ramesh	Moradabad
154	Seeta	Hapur
155	Suresh	Amroha
156	Mohan	Rampur

Name
Ramesh
Seeta
Suresh
Mohan

**Student Table**

Which query will display the second table given above?

- a) Select student from name
- b) Select name
- c) Select name from student
- d) Select student

Ans-c

33. 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

Ans-d

34. 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 sallary = 50000;

Ans-d

35. In the given query which of the keyword has to be inserted?

INSERT INTO employee \_\_\_\_\_ (1002, Ram, 2000);

- a) Table
- b) Values
- c) Relation
- d) Field

Ans-b

36. Aggregate functions are functions that take a \_\_\_\_\_ as input and return a single value.

- a) Collection of values
- b) Single value
- c) Aggregate value
- d) None of the above

Ans-a

37. Which of the following creates a virtual relation for storing the query?

- a) Function
- b) View
- c) Procedure
- d) None of the mentioned

Ans-b

38. Which of the following should be used to find the mean of the salary?

- a) Mean(salary)
- b) Avg(salary)
- c) Sum(salary)
- d) Count(salary)

Ans-b

39. Which is the reference to the tuples in a relation.

- a) Index
- b) Reference
- c) Assertion
- d) Timestamp

Ans-a

40. Which 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

Ans-b

41. Which one of the following uniquely identifies the elements in the relation?

- a) Secondary Key
- b) Primary key
- c) Foreign key
- d) Composite key

Ans-b

42. Which of the following database object does not physically exist?

- A. Base table
- B. Index
- C. View
- D. None of the above

Ans-c

43. Key to represent relationship between tables is called

- A. Primary key
- B. Secondary Key
- C. Foreign Key
- D. None of these

Ans-C

44. A RDBMS consists a collection of ?

- A. Tables
- B. Fields
- C. Records
- D. Keys

Ans-A

45. The term attribute refers to a \_\_\_\_\_ of a table.

- A. Record
- B. Tuple
- C. Column
- D. Key

Ans-C

46. In relational model, the row of table is known as?

- A. Relation
- B. Entity field
- C. Tuple
- D. Attribute

Ans-C

47. Address field of a person should not be part of primary key, since it is likely to?

- A. Dependent
- B. Too long
- C. Changed
- D. Not changed

Ans-C

48. What is the full form of RDBMS ?

- A. Right Database Management System
- B. Relational Database Management system
- C. Rapid Database Management System
- D. Route Database Management System

Ans-B

49. Using which language can a user request information from a database?

- A. Query
- B. Relational
- C. Structural
- D. Compiler

Ans-A

50. Primary key must be

- A. Unique
- B. Not Null
- C. Both A and B
- D. None of these

Ans-C

51. Which of the following is not an aggregate function:

- a) Avg
- b) Sum
- c) With
- d) Min

Ans-C

52. Which of the following is a valid SQL data type :

- a) INT
- b) FLOAT
- c) VARCHAR
- d) All of the above

Ans-d

53. SQL stand for

- A. Structured Query Language
- B. Structured Query List
- C. Simple Query Language
- D. None of these

Ans-A

54. Which SQL function is used to count the all number of rows in a SQL query?

- a) COUNT()
- b) NUMBER()
- c) SUM()
- d) COUNT(\*)

Ans-d

55. Which SQL keyword is used to retrieve a maximum value?

- a) MOST
- b) TOP
- c) MAX
- d) UPPER

Ans-c

56. Which command is used to delete all rows from a table.

- a) DELETE
- b) REMOVE
- c) DROP
- d) TRUNCATE

Ans-d



57. Which of the following statement is true?

- a) DELETE does not free the space containing the table and TRUNCATE free the space containing the table
- b) Both DELETE and TRUNCATE free the space containing the table
- c) Both DELETE and TRUNCATE does not free the space containing the table
- d) DELETE free the space containing the table and TRUNCATE does not free the space containing the table

Ans-a

58. Which of the following is not a DDL command?

- a) UPDATE
- b) TRUNCATE
- c) ALTER
- d) None of the Mentioned

Ans-a

59. If you want to allow age of a person > 18 in the column Age of table Person, then which constraint will be applied to AGE column.

- a) Default
- b) Check
- c) NOT NULL
- d) None

Ans-b

60. Logical operators used in SQL are

- a) AND, OR , NOT
- b) &&, ||, !
- c) \$,|,!
- d) None of the above

Ans-a

## Unit-3 & 4

61. A table is in BCNF if it is in 3NF and if every determinant is a \_\_\_\_\_ key.

- a) Dependent
- b) Normal
- c) Super
- d) Both Normal and Candidate

Ans-c

62. A table is in 3NF if it is in 2NF and if it has no \_\_\_\_\_

- a) Functional Dependencies
- b) Transitive Dependencies
- c) Trivial Functional Dependency
- d) Multivalued Dependencies

Ans-b

63. Which is an indirect functional dependency, one in which  $X \rightarrow Z$  only by virtue of  $X \rightarrow Y$  and  $Y \rightarrow Z$ .

- a) Multivalued Dependencies
- b) Join Dependency
- c) Trivial Functional Dependency
- d) Transitive Dependencies

Ans-d

64. Splitting the relation into multiple relations, is known as

- a) Accupressure
- b) Decomposition
- c) Precomposition
- d) Both Decomposition and Precomposition

Ans-b

65. A functional dependency is a relationship between or among

- A. Entities
- B. Rows
- C. Attributes
- D. Tables

Ans-c

66. The database design prevents some data from being stored due to \_\_\_\_\_.

- A. Deletion anomalies
- B. Insertion anomalies
- C. Update anomalies
- D. Selection anomalies

Ans-B

67. If one attribute is determinant of second, which in turn is determinant of third, then the relation cannot be:

- A. Well-structured
- B. 1NF
- C. 2NF
- D. 3NF

Ans-D

68. In which form of function there is no partial functional dependencies.

- A. BCNF
- B. 2NF
- C. 3NF
- D. 4NF

Ans-B

69. In which normal form value in each column is atomic .

- A. 1NF
- B. 2NF
- C. 3NF
- D. 4NF

Ans-A

70. Normalization is the process of:

- A. Organizing the data in the database
- B. Eliminating data redundancy
- C. Eliminating anomalies
- D. All of the above

Ans-D

71. Collections of operations that form a single logical unit of work are called \_\_\_\_\_

- a) Views
- b) Networks
- c) Units
- d) Transactions

Ans-d

72. The “all-or-none” property is commonly referred to as \_\_\_\_\_

- a) Isolation
- b) Durability
- c) Atomicity
- d) None of the mentioned

Ans-c

73. Which of the following is a property of transactions?

- a) Atomicity
- b) Durability
- c) Isolation
- d) All of the mentioned

Ans-d

74. Which of the following is not a property of a transaction?

- a) Atomicity
- b) Simplicity
- c) Isolation
- d) Durability

Ans-b

75. Which of the following systems is responsible for ensuring isolation?

- a) Recovery system
- b) Atomic system
- c) Concurrency control system
- d) Compiler system

Ans-b

76. A transaction that has not been completed successfully is called as \_\_\_\_\_

- a) Compensating transaction
- b) Aborted transaction
- c) Active transaction
- d) Partially committed transaction

Ans-b

77. Which of the following is not a transaction state?

- a) Active
- b) Partially committed
- c) Failed
- d) Compensated

Ans-d

78. What are the ACID Properties of transaction?

- (A) Atomicity, Consistency, Inconsistent, Durability
- (B) Atomicity, Consistency, Isolation, Durability
- (C) Atomicity, Consistency, Inconsistent, Database
- (D) Automatically, Consistency, Inconsistent, Durability

Ans-B

79. When more than one user is accessing same data at the same time then it is known

- (A) Controlled Access
- (B) Currently Access
- (C) Concurrent Access
- (D) Uncontrolled Access

Ans-C

80. Which of the following is not any type of schedule

- (A) Serial Schedule
- (B) Non- Serial Schedule
- (C) Concurrent Schedule
- (D) None of the above

Ans-C

81. Transactions are executed one by one without any interleaved operations from other transactions is known as

- (A) Serial Schedule
- (B) Complete Schedule
- (C) Concurrent Schedule
- (D) Non-Complete Schedule

Ans-A

82. The size of data item to be lock is known as its

- (A) Implicit Lock
- (B) Explicit Lock
- (C) Granularity
- (D) None of above

Ans-C

83. If a transaction has obtained a \_\_\_\_\_ lock, it can read but cannot write on the item.

- (A) Shared
- (B) Exclusive
- (C) Implicit
- (D) Explicit

Ans-A

84. The protocol that indicates when a transaction acquire lock and unlock on data items is known as

- (A) Unlocking Protocol
- (B) Concurrency Control Protocol
- (C) Locking Protocol
- (D) None of above

Ans-C

85. Which of the following phases consist Two Phase Locking protocol

- (A) Growing Phase
- (B) Shrinking Phase
- (C) Both A & B
- (D) None of above

Ans-C

86. In 2PL If a transaction may obtain locks but may not release any locks then Transaction is in

- (A) Initial Phase
- (B) Growing Phase
- (C) Shrinking Phase
- (D) Deadlock phase

Ans-B

87. In 2PL If a transaction may release locks but may not obtain any locks then transaction is in

- (A) Initial Phase
- (B) Growing Phase
- (C) Shrinking Phase
- (D) Deadlock phase

Ans-C

88. Which of the following is used to implement a timestamp

- (A) System Clock
- (B) Logical Counter
- (C) Both A & B
- (D) None of above

Ans-C

89. In a granularity hierarchy the highest level represents the

- a) Entire database
- b) Area
- c) File
- d) Record

Ans-A

90. Which denotes the largest timestamp of any transaction that executed write(Q) successfully.

- a) W-timestamp(Q)
- b) R-timestamp(Q)
- c) RW-timestamp(Q)
- d) WR-timestamp(Q)

Ans-A

91. Which of the following are introduced to reduce the overheads caused by the log-based recovery?

- a) Checkpoints
- b) Indices
- c) Deadlocks
- d) Locks

Ans-A

92. In which method, some of the columns of a relation are stored at different sites

- A. Data Replication
- B. Horizontal Partitioning
- C. Vertical Partitioning
- D. Horizontal and Vertical Partitioning

Ans-C

93. Which method stores a separate copy of database at multiple sites:

- A. Data Replication
- B. Horizontal Partitioning
- C. Vertical Partitioning
- D. Horizontal and Vertical Partitioning

Ans-A

94. In which method, some of the rows of a relation are stored at different sites

- A. Data Replication
- B. Horizontal Partitioning
- C. Vertical Partitioning
- D. Horizontal and Vertical Partitioning

Ans-B

95. Checkpoints are a part of

- A. Recovery measures
- B. Security measures
- C. Concurrency measures
- D. Authorization measures

Ans-B

96. In log based recovery, the log is sequence of .....

- A. filter
- B. records
- C. blocks
- D. numbers

Ans-B

97. Which of the following can cause a transaction failure

- a. Logical error
- b. System error
- c. Hard-Disk Failure
- d. All of the above

Ans-d

98. If a transaction cannot complete due to some code error or an internal error condition it is called as a

- a. Logical error
- b. System error
- c. Hard-Disk Failure
- d. None of the mentioned

Ans-a

99. Rollback of transactions is normally used to :

- a. recover from transaction failure
- b. update the transaction
- c. retrieve old records
- d. repeat a transaction

Ans-a

100. Which is a simple and efficient way of determining conflict serializability of the schedule?

- a) Serializability order
- b) Direction graph
- c) Precedence graph
- d) Scheduling scheme

Ans-c

101. The set of \_\_\_\_\_ in a precedence graph consists of all the transactions participating in the schedule

- a) Vertices
- b) Edges
- c) Directions
- d) None of the mentioned

Ans-a