

DATA BASE MANAGEMENT

CS403

**CS403 MCQs and Important Question and also Important Topic
for Final**

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All MCQS are Correct If u found than correct by yourself

1. Hash partitioning is applied on-----
 - Rows GOOGLE
 - Columns
 - Constrains
 - Attributes

1. At which stage of database development process, the schema rules are defined and indentified?
 - Mapping of conceptual model to the logical model pg54
 - Analyzing user requirements
 - Development of the conceptual
 - Development of the physical design

2. Which of the following is INCORRECT about “Materialized Views”? rep
 - There are suitable in “Data warehouses”.
 - These are schema object which can be use to summaries the data
 - They cannot be partitioned Pg290
 - Their existence is transparent to SQL applications and users

3. Identify the incorrect statement among the given rep
 - An entity may be an object with physical existences like a car.
 - Age can be considered as a single values attributes of a person
 - The attribute Data_of_birth can be considered as a derived attribute
 - Skill is a multivalve attribute

4. ----- is used to manage the database and its Users
 - DBMS pg11
 - File processing system
 - DFD
 - Cross reference matrix

5. A student has five courses at max registered in a semester and there are many student as well in a course .Student and entities have-----cardinality
 - One to One
 - One to Many

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- Many to One
 - Many to Many Pg94
6. Attributes on which we do not need to access the unique instances of an entity type is called.
- Primary key
 - Secondary key pg84
 - Alternate key
 - Foreign key
7. In which of the following situations, Clustering is suitable. rep
- Frequently up dating
 - Relatively static pg 192
 - Frequently deletion
 - Relatively dynamic
8. ----- is not a feature of hash access REP
- Indexes to search or maintain
 - Very fast direct access
 - Inefficient sequential access
 - Use when direct access is needed ,but sequential access is not
- Ye sare hash feature hai to VU walo ne ye MCQS wrong diya h to correct ansewer D hi hoga Phir
9. Minimal super key can also be named as
- Candidate key pg82
 - Alternate key
 - Foreign key
 - Secondary key
10. Which of the following command shows from PRODUCT-VIEW rep
- SELECT*FROM PRODUCT-VIEW
 - SELECT PRODUCT-VIEW
 - SHOW ALL PRODUCT-VIEW
 - PRODUCT-VIEW SELECT

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11. If W, X, Y and Z are attributes of a relation, which of the following inference rules for functional dependencies is correct?

- If $(X, Z) \rightarrow Y$ then $X \rightarrow Y$ and $Z \rightarrow Y$
- If $X \rightarrow Y$ and $X \rightarrow Z$ then $X \rightarrow Y, Z$

12. While recovering data, which of the following files does a recovery manager examine first?

- A system file
- Log file pg303
- Data dictionary
- Metadata

13. The purpose of --- is to maintain the consistency of database during concurrent access. REP

- Outer join
- Inner join
- Clustered index
- Concurrency control pg310

14. Which of the following is the correct syntax for SELECT statement rep

- SELECT column-name (s) FROM table name 212
- SELECT FROM table-name column-name
- FROM SELECT column-name table -name
- FROM table-name SELECT column-name

15. ----- must identify a records in the table, uniquely REP

- Hash Algorithm
- Key pg260
- SQL Statement
- Index

16. ---- is an example of volatile memory REP

- RAM
- ROM
- Flash memory
- CPU

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17. A perfect hash function maps a key to a distinct location having search time _____.

- **O(1)** pg266
- O(n)
- O(n+1)
- O(n-1)

18. A super key for which no subset is a super key is called---

- **Candidate key** pg82
- Primary key
- Super key
- Secondary key

19. Which of the following specifies the tables, which we access in the query

REP

- **SELECT Clause** pg212
- FROM Clause
- WHERE Clause
- ORDER BY Clause

20. Which of the following statements is not true

- Any super-type linked entity are also inherited to subtype entities
- Relationship between subtype defines the existence of a super type in a sub type entity
- **Disjointness constrain defines the existence of a super entity**
- We never identify of sub-type subtype on the basis of general knowledge

21. Which of the following gives all the fields from employee table named as EMP? **REP**

- **Select *from EMP**

22. To read a database object, it is first brought into----- from disk, and then its values are copied into a program into a program variable **rep**

- **Main Memory** pg249
- Flash Memory

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- state hard disk
 - solid state hard disk
23. CLUSTERED indexes is created automatically when we create---REP
- ERD
 - Database
 - Cross Reference Matrix
 - Primary key pg276
24. Wait-for graph is maintained by---
- Lock manager pg300
 - Index Manager
 - View Manager
 - Constraint Manager
25. Which of the following is NOT a feature of a good interface?
- Consistency
 - Process based
 - Data structure based
 - User friendly
26. Which of the following SQL keywords is not used with DDL statements?
- Table
 - Update
 - Create
 - Alter
27. Which of the following is not a type of VIEWS?
- Materialized View
 - Simple Views
 - Complex View
 - Cross Reference View 283
28. Which of the following is the correct way of removing the Index called branchNoIndex?
- DROP INDEX branchNoIndex;
 - APPEND INDEX branchNoIndex;
 - REMOVE INDEX branchNoIndex;
 - DEL INDEX branchNoIndex;

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29. Which of the following is incorrect about Database transaction **REP**
- It can only end in one way which is roll back
 - It must preserve the consistency of the database
 - It must follow the ACID properties
 - **It is seen by the DBMS as a list of action 291**
30. Which of the following commands is used to TRUNCATE the table named STUDENT?
- **TRUNCATE TABLE STUDENT**
 - TABLE TRUNCATE STUDENT
 - TABLE STUDENT TRUNCATE
 - STUDENT TABLE TRUNCATE
31. Which of the following is not a feature of effective interface?
- Effective interfaces can require more work to implement
 - An effective user interface minimizes the time users require to learn and implement the system
 - It helps users to accomplish their tasks and otherwise gets out of the way
 - **An effective interface imposes its requirements on users pg239**
32. Which of the following stores the textual data"? **rep**
- Tidyint
 - Smallint
 - Biggint
 - **Varchar 197**
33. _____ is used to read, write, and remove the data from a database
- **SQL pg196**
 - ERD
 - ANSI
 - Data Model
34. Which of the following is not related with Browser based forms development?
- HTML
 - ASP

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- Front Page
- Dev C pg241

35. Which of the following is not a DDL Command? REP

- Create table
- Alter table
- Insert into
- Create database

36. Which of the following SQL command will DROP a view named STUDENT

rep

- DROP VIEW STUDENT I think
- DROP FROM STUDENT VIEW
- DELETE STUDENT FROM VIEW
- DELETE ALL STUDENT VIEW

37. Data sharing in database avoids

- Data duplication I think
- Data independence
- Data Manipulation
- Data integrity

38. Which of the following is used to add or drop columns in an existing table?

- ALTER pg207
- HAVING
- SELECT
- THEN

39. Which of the following is not a form of optical disk? REP

- CD ROM
- WORM
- Erasable Optical
- EEPROM pg257

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40. "Select * from STUDENT, DEPARTMENT" is an example of. **REP**
- **Cartesian Join**
 - Inner Join
 - Outer Join
 - **Full Outer Join** **CONFIRM**
41. AS a general rule, which external entity of DFD cannot appear as an entity type in ERD?
- An entity with many instances
 - A super-type entity
 - A subtypes entity
 - An entity type for which instance is single
42. Dead Lock can be prevented by giving each transaction a _____.
- Name
 - Clustered Index
 - Cartesian Join
 - **Priority** **pg299**
43. ----- is not the responsibility of DBMS
- Support for data communication
 - Integrity service
 - Data processing
 - Grant of access right
44. Vertical partitioning is done on the basis of **REP**
- **Attributes** **pg191**
 - Rows
 - Clustering
 - Replication
45. Attributes that jointly make a composite attributes are called ---- of that attributes
- **Entity** **191**
 - Instance
 - Domain

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- Components
46. Which of the following is true about foreign key?
- Foreign key should not be from the same domain as is the primary key
 - Foreign key and primary key name must be same
 - There can be one foreign key in a tables/relation
 - Home relation of foreign key attribute is the one .which is present as primary in another relation
47. SQL ----- standard computer language
- ANSI ph191
48. Which of the following is true about the views? **REP**
- View can only show few attributes of a table
 - View cannot be used for retrieving data
 - View cannot be used as security mechanisms
 - We can customize the order of the table fields through Views GOOGLE
49. In which type of relationship, PK of the same entity type can be used as FK
- One –to- Many pg124
 - One –to- ONE
 - Many –to-one
 - Many –to-many
50. A file with _____ records, with sequential access file, an average of _____ key comparisons are necessary.
- 10000, 5500
 - 10000, 5000 GOOGLE
 - 10000, 4500
 - 10000, 500
51. Which of the following SQL Function does not use input parameter?
- LOWER
 - UPPER
 - LEN
 - CURRENT_TIME pg121
52. Which of the following feature provides more data reliability in a DBMS?

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- Data sharing
 - Controlled redundancy
 - Better data integrity pg16
 - Concurrency
53. After execution of “commit” statement, _____ is updated first.
- Database Buffer pg303
 - Clustered-Index
 - Non-Clustered Index
 - Application Program
54. Identify the command to remove from the table
- DROP GOOGLE
 - INSERT
 - UPDATA
 - DELETE
55. Which of the following is not one of the properties of Transaction?
- Atomicity
 - Consistency
 - Redundancy pg294
 - Durability
56. Which of the following is not a type of user interface?
- Graphical User Interface (GUI)
 - Forms
 - Database Schema pg240
 - Text based Interface
57. Which of the following operation allows certain selections and Cartesian product into one operation?
- Join pg157
 - Select
 - Project
 - Union
58. Which of the following is not true about relational tables?

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- Column values are of the same kind.
- Each row is unique.
- Each column must have a unique name.
- The sequence of rows is significant.

59. Locking is maintained by----- **REP**

- End use
- Form designer
- Lock manager **pg315**
- User interface

60. Which of the following is not correct about input forms?

- Provide an easy, effective, efficient way to enter data into a table
- Especially useful when the person entering the data is not familiar with the inner workings
- Provide different controls to add data into the tables
- One input forms can populate one table at a time **pg246**

61. If $D \rightarrow E, F$ then $D \rightarrow E$ and $D \rightarrow F$.

- This inference rules is called as _____.
- Transitivity **pg166**
- Additive
- projectivity
- Augmentation

62. To access a files ABC sequential files access involves too much ---- as compared to direct files access

- Time, space and number of files
- Number of files
- Space
- Time **pg261**

63. _____ is used to detect the dead lock. **REP**

- Wait-for graph **pg320**
- Cross Reference Matrix
- Inner Join
- Clustered Index

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64. _____ is a control that presents a set of choices from which a user can select one or more items; **REP**
- Items can be text, graphics, or both.
 - **Button** **Google**
 - List box
 - Text input
65. Which of the following statements creates a database named COMPANY. **REP**
- **CREATE DATABASE company** **google**
 - CREATE DB company
 - ADD DATABASE company
 - CREATE company DATABASE
66. The main memory of a computer system is also known as **REP**
- ROM
 - **RAM** **pg256**
 - PROM
 - Hard disk
67. Which of the following is not a DDL Command?
- Create table
 - Alter table
 - **Insert into** **Google**
 - Create database
68. How we CANNOT determine the cardinalities of a system
- By interviewing the user
 - Through analysis of the organization
 - Using the system requirement
 - **Creating by ourselves** **pg92**
69. ----- is used to access and manipulate data
- DDL
 - **DML** **pg200**
 - DCL
 - ERD

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70. Which of the following is incorrect regarding Indexes? **REP**
- **It cannot be created on composite attributes. Pg273**
 - Index can be defined even when there is no data in the table.
 - It supports Range selections.
 - It can be created using 'Create Index' statement
71. A relation (from the relational database model) consists of a set of tuples, which implies that Relational model supports multi-valued attributes whose values can be represented in sets.
- for any two tuples, the values associated with all of their attributes may be the same.
 - **for any two tuples, the values associated with one or more of their attributes must differ. google**
 - all tuples in a particular relation may have different attributes.
72. Which of the following is not correct Regarding VIEWS
- VIEWS can be used to interact with database
 - Through view user can focus on their interested data
 - View can show one or more records from a database
 - **View cannot be update pg280**
73. Database System" is the combination of _____.
- **Database and DBMS pg11**
 - Database and Data
 - Data and Information
 - Operating System and Database
74. If $A \rightarrow B$ then $AC \rightarrow BC$
- This inference rules is called as _____.
 - Transitivity
 - Additive
 - **Augmentation pg166**
75. On magnetic media, data is stored in _____
- Text
 - Images
 - **Binary format pg240**
 - Tables

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76. Which of the following tells us that the link between two relation is compulsory or optional

- Minimum cardinality pg91
- Maximum cardinality
- Existence dependency
- Referential dependency

77. Which of the following is NOT a part of Deadlock Resolution?

- Choose a victim
- A message is passed to the victim and depending on the system the transaction may or may not be started again automatically.
- Picking a list of all previously completed transactions and undoing all the updates. page323
- Rollback `victim' transaction and restart it.

78. Which of the following is one of the purposes of using DML commands?

REP

- Creating databases
- Destroying databases
- Inserting data in tables page208
- Non of the above

79. Dead Lock can be prevented by giving each transaction a _____.

- Name
- Clustered Index
- Cartesian Join
- Priority pg299

80. Partitions may become unbalanced in:

- Range partitioning page189
- Hash partitioning
- List partitioning
- Vertical partitioning

81. A Table can have _____ clustered index (es).

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- **Only one** **page275**
 - Only two
 - More than two
 - Only three
82. Which of the following is a feature of foreign key constrain
- Used to enforce referential integrity
 - Limit the no of values that can be placed in a column
 - Enforces that the column will not accept null values
 - **Enforces the uniqueness of the values in a set of column**
83. _____ is used to sort the result set in ascending or descending order
- Group by Clause
 - From Clause
 - Where Clause
 - **Order by Clause** **pg220**
84. How super type properties can be transferred in sub types automatically
- **Inheritance** GOOGLR
 - Abstraction
 - Encapsulation
 - Through DFD
85. Which of the following is a correct way of selecting all the columns from a table called PERSONS?
- SELECT FROM * Persons
 - **SELECT * FROM Persons** pg216
 - SELECT * WHERE Persons
 - SELECT WHERE * Persons
86. _____ is disadvantage of chaining technique to handle the collisions.
- Unlimited Number of elements
 - Fast re-hashing
 - **Overhead of multiple linked lists** **Google**
 - Maximum number of elements must be known
87. Which of the following is not a type of VIEWS?

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- Materialized View
 - Simple Views
 - Complex View
 - **Cross Reference View** **pg283**
88. ----- is not an operation of relational algebra
- **Addition** **pg147**
 - Union
 - Cartesian product
 - Set difference
89. Consider two sets A and B. A contains 2 elements and B contains 3. How many elements do their
- Cartesian product contains?
 - **6** **Google**
 - 9
 - 4
 - 5
90. Which of the following types of partitioning reduces the chances of unbalanced partitions?
- Vertical
 - List
 - **Hash** **page 189**
 - Range
91. Suppose there are 5 rows and 4 columns in TABLE1 and 6 rows and 7 columns in TABLE2; what is the size of the Cartesian product in case of CROSS JOIN between these two tables?
- **30** **Google**
 - 35
 - 24
 - 28
92. Attributes on which we do not need to access the unique instances of an entity type is called.
- Primary key
 - **Secondary** **I think**
 - AlterNet key

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- Foreign key
93. Which of the following is not the component of relational data model
- Integrity constraint
 - Manipulation language **GOOGLE**
 - Relation /table
 - Domain constraint
94. To make a change in traditional file processing system was difficult due to .
- Independent program and data
 - Program and data interdependence
 - Slow system performance
 - Lack of computer knowledge
95. DFD and CRM help to identify the
- Attribute
 - Entity type
 - Data model
 - Database
96. ----- Record data by burning microscopic holes in the surface of the disk with a laser
- Hard disk
 - RAM
 - Optical disk **pg257**
 - Floppy disk
97. A patient can only be an indoor or an outdoor patient , what do you conclude about patient entity from above statement
- Complete disjoint
 - Total completeness **pg107**
 - Partial disjoint
 - Partial overlapping
98. If in a relational R, all non key attributes are fully functionally dependent on key attributes .the relation R is in-----
- 2NF **pg167**
 - 3NF
 - BCNF
 - Higher NF
99. ----- Is an example of non-volatile memory

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- SRAM
 - Cache memory
 - Flash memory GOOGLE
 - DRAM
100. If a relation contains single Key, the relation is automatically in _____.
- 1NF
 - 2NF 169
 - 3NF
 - 4NF
101. Which of the following is true about a relation?
- We cannot determine the degree of a relation
 - A relation is subset of a Cartesian product pg129
 - A relation is a three dimensional arrangement
 - A relation can only have a limited number of records
102. The following sentence is incorrect about sub-query
- A sub query must be enclosed in the parenthesis
 - A sub query must be put in the left hand of the comparison operator
 - A sub query cannot contain order-by clause
 - A query can contain more than one sub queries
103. Suppose there are 7 rows and 4 columns in TABLE1 and 5 rows and 3 columns in TABLE2; what is the size of the Cartesian product incase of CROSS JOIN between these two tables?
- 35 Google
 -
 - 18
 - 21
104. What is the impact of setting multiple indexes for the same key?
- Multiple indexes for the same key cannot be set
 - It increases efficiency Google
 - It decreases efficiency

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- It will increase complexity as the access time will be increased
105. In DFD collector shows the---- of data to a single point
- Divergence
 - **Convergence** page 58
 - Subtraction
 - Separation
106. Three level schema Architecture allows us to separate the physical representation of data from the
- System view
 - **User view**
 - Database view
 - Architecture view
107. We can apply union operation on relational only if
- They have the same names
 - They do not have same domains of corresponding attributes
 - They do not have same number of attributes
 - **They have same degree**
108. In which type of join rows are joined on the basis of a common attributes
- **Equi –join**
 - Theta join
 - Left outer join
 - Right outer join
109. The select the range while creating indexes ,the operator that is not used that is not used is----
- **Equals to(==)**
 - Less than(<)
 - And (&&)
 - Between

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110. Which of the following is the correct way to find out the size of Cartesian product in case of CROSS JOIN?
- The number of columns in the first table multiplied by the number of columns in the second table.
 - The number of columns in the first table multiplied by the number of rows in the second table.
 - The number of rows in the first table multiplied by the number of columns in the first table.
 - the number of rows in the first table multiplied by the number of rows in the second Table. Google
111. DBMS and operating system both are example of
- Hardware Google
 - Software
 - Database
 - File processing system
112. Which of the following is NOT a feature of a good interface?
- Consistency
 - Process based
 - Data structure based Conceptual
 - User friendly
113. Purpose of normalization is to
- Produce redundancy
 - Create insertion problem
 - Make maintence difficult
 - Remove all kind of anomalies GOOGLE
114. Which of following is NOT generally the aim of data partitioning and placement of data?
- Reduce Workload
 - Balance Workload
 - Merging different relations Google

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- Speed up rate of useful works.
115. Which of the following is the activity which is not performed during the development of application programs
- Data input programs
 - Editing
 - Display
 - Data collection pg238
116. Permanent structure of the database is also called
- Impression of the database
 - Extension of the database pg34
 - Expansion of the database
 - Intension of the database
117. Data is also called
- Organized facts
 - Raw facts GOOGLE and Conceptual
 - Information
 - Processed facts
118. Controlling redundancy in database does not help to?
- Avoid data duplication page16 Conceptual
 - Avoid unnecessary wastage of storage space
 - Avoid unauthorized access to data
 - Avoid data inconsistency
119. Which of the following feature allow many user to users to use a DBMS at the same time
- Robustness
 - Concurrency
 - Scalability
 - Efficiency
120. A DBMS which perform all necessary associated to a database is a collection of
- Steps

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- Programs
 - Files
 - Processes
121. Which of the following is not an operation of relational algebra
- Union
 - **Reminder** Confirmed
 - Cartesian product
 - Set different
122. Which of the following is not the property of Transaction?
- Atomicity
 - Consistency
 - **Redundancy**
 - Durability
123. Which of the following is created by Database Management system for its usage
- **Integrated Data Dictionary** Confirm
 - Free standing data dictionary
 - Cross reference matrix
 - Weak entity
124. Basic building block of relational data model
- Manipulation language
 - Row
 - **Table**
 - Cartesian product
125. Major drawback of traditional file processing system is
- Sharing data
 - Congestion control
 - **Data inconsistency**
 - Concurrency
126. Identify the language which is used to specify database scheme. (Page 199)

DDL

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It is used to specify a **database scheme** as a set of definitions expressed in a **DDL**. DDL statements are compiled, resulting in a set of tables stored in a special file called

127. Which of the following SQL statement used to control access to the data in the database? (page 200)

GRANT and REVOKE

The category of **SQL statements** that control access to the data and to the database. Examples are the **GRANT and REVOKE** statements.

128. Grant Command belong to which type of classification?

DCL (GOOGLE)

129. Which of the following is one of the purposes of using DDL commands? (page 196)

Create and Destroying database

Rules of SQL Format

SQL, at its simplest, is a basic language that allows you to "talk" to a database and extract useful information. With SQL, you may read, write, and remove information from a database. SQL commands can be divided into two main sub languages. The Data Definition Language (**DDL**) contains the commands used to **create and destroy databases** and database objects. After the database structure is defined with DDL, database administrators and users can utilize the Data Manipulation Language to insert, retrieve and modify the data contained within it. Following are the rules for writing the commands in SQL:-

130. The _____ Operator allows to use wild cards in the where clause of an SQL statement. (Page 218)

LIKE

The **LIKE** operator allows you to use wildcards in the where clause of an SQL statement. This allows you to perform pattern matching. The LIKE condition can be used in any valid SQL statement - select, insert, update, or delete.

131. In SQL which command is used to delete rows from Table. (Page 234)

DELETE

DELETE: The right to **delete rows** from the table named as object.

132. Which of the following function falls in the category of Aggregate function? (Page 222)

All of the above

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Aggregate function can be a function such as SUM, COUNT, MIN or MAX

133. The _____ condition use to retrieve values within a specific range. (Page 217)

BETWEEN

The BETWEEN condition allows you to retrieve values within a specific range.

134. The _____ Function helps to reduce the need of Multiple OR condition. (Page 218)

IN

The IN function helps reduce the need to use multiple OR conditions. It is sued to check in a list of values. The syntax for the IN function is:

135. Objective of an order by clause is to display or arrange output of a select statement in a particular order. (Page 220)

YES

ORDER BY Clause

The ORDER BY clause allows you to sort the records in your result set. The ORDER BY clause can only be used in SELECT statements. The ORDER BY clause sorts the result set based on the columns specified. If the ASC or DESC value is omitted, the system assumed ascending order. We will now see few examples of this clause

136. DBMS stand for _____

DATABASE MANAGEMENT SYSTEM

137. Which of the following is used to filter rows according to some condition? (Page 215)

WHERE

The WHERE clause allows you to filter the results from an SQL statement - select, insert, update, or delete statement. The rows which satisfy the condition in the where clause are selected. The format of WHERE clause is as under:

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138. Which of the following is incorrect about alter table statement?
Cannot be used to modify type or size of an existing column (GOOGLE)
139. Which is not the function of Database Management System?
Failaiour Response Service (GOOGLE)
140. Which of the following is a string function in SQL? (Page 221)
LEN
- Mathematical (ABS, ROUND, SIN, SQRT)
 - **String** (LOWER, UPPER, SUBSTRING, **LEN**)
 - Date (DATEDIFF, DATEPART, GETDATE ())
 - System (USER, DATALENGTH, HOST_NAME)
 - Conversion (CAST, CONVERT)
141. Which of the following is a Date function in SQL? (Page 221)
DATEPART
- Mathematical (ABS, ROUND, SIN, SQRT)
 - String (LOWER, UPPER, SUBSTRING, LEN)
 - **Date** (DATEDIFF, **DATEPART**, GETDATE ())
 - System (USER, DATALENGTH, HOST_NAME)
 - Conversion (CAST, CONVERT)
142. Which of the following is a Conversion function in SQL? (Page 221)
CAST
- Mathematical (ABS, ROUND, SIN, SQRT)
 - String (LOWER, UPPER, SUBSTRING, LEN)
 - Date (DATEDIFF, DATEPART, GETDATE ())
 - System (USER, DATALENGTH, HOST_NAME)
 - **Conversion** (**CAST**, CONVERT)
143. Which of the following is a System function in SQL? (Page 221)
HOST_NAME
- Mathematical (ABS, ROUND, SIN, SQRT)
 - String (LOWER, UPPER, SUBSTRING, LEN)
 - Date (DATEDIFF, DATEPART, GETDATE ())
 - **System** (USER, DATALENGTH, **HOST_NAME**)
 - Conversion (CAST, CONVERT)

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144. Which of the following is not an aggregate function? (Page 222)

UPPER

Function	Usage
AVG(expression) expression	Computes average value of a column by the
COUNT(expression)	Counts the rows defined by the expression
COUNT(*)	Counts all rows in the specified table or view
MIN(expression) expression	Finds the minimum value in a column by the
MAX(expression) expression	Finds the maximum value in a column by the
SUM(expression)	Computes the sum of column values by the expression

145. Which of the following SQL clauses used to start the records in result set? (Page 219)

ORDER BY

The **ORDER BY** clause allows you to sort the records in your result set. The ORDER BY clause can only be used in SELECT statements.

146. The ORDER BY clause can only be used in _____ statements. (Page 219)

SELECT

The ORDER BY clause allows you to sort the records in your result set. The ORDER BY clause can only be used in SELECT statements.

147. SQL is used for

All of the above

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148. Which of the following function falls in the category of aggregate function? (Page 222)

All of the above

Function	Usage
AVG(expression) expression	Computes average value of a column by the expression
COUNT(expression)	Counts the rows defined by the expression
COUNT(*)	Counts all rows in the specified table or view
MIN(expression) expression	Finds the minimum value in a column by the expression
MAX(expression) expression	Finds the maximum value in a column by the expression
SUM(expression)	Computes the sum of column values by the expression

149. Which of the following is the correct SQL statement for creating table in Microsoft SQL server?

**CREAT TABLE Customer
(SID integer PRIMARY KEY,
Last_Name varchar (30)**

150. DML does not used to

Alter a Table definition (GOOGLE)

151. UPDATE command belong to which type of classification?

DML (GOOGLE)

152. DDL stand For

DATA DEFINITION LANGUAGE

DDL

It deals with the structure of database. The **DDL** (Data Definition Language) allows specification of not only a set of relations, but also the following information for each relation:

153. Which of the following is incorrect about alter table statement? (Page 207)

Cannot be used to modify type or size of an existing column

Using the **ALTER TABLE** statement, we can alter an **existing table in several** ways. We can:

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154. Which of the following is used to retrieve and insert information from database? (Page 196)

DML

DML

database administrators and users can utilize the **Data Manipulation Language** to insert, retrieve and modify the data contained within it. Following are the rules for writing the commands in SQL:-

155. Which of the following statement creates a database named IMDB? (Page 202)

CREATE DATABASE IMDB (Google) (PLZ be correct by yourself)

is given for a disk-based table, the table will be pre-allocated to **IMB**. If no filegrowth is given, the default is 50%. It is used to create new tables, fields, views and indexes. It is used to create database. The format of statement is as under:

CREATE DATABASE db_name

156. Which of the following is a correct way of selecting all the columns from a table called PERSONS?

SELECT * FROM PERSON (GOOGLE) Different website se dekha same answer

157. Which of the following is the correct syntax for adding a new column into an existing table.

**ALTER TABLE table_name{
ADD[COLUMN]column type [(size)][DEFAULT default]}**

158. Identify the basic(s) of a SELECT statement. (Page 211)

Both SELECT and FROM

SELECT keyword. The basic **SELECT statement** has 3 clauses:

- **SELECT**
- **FROM**
- **WHERE**

159. The conceptual database design can be transformed into any _____. (page 125)

DATA MODEL

160. Making a change to the conceptual schema of a database but not affecting the existing external schemas is an example of

- ▶ Physical data independence.
- ▶ Concurrency control.

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▶ **Logical data independence.**

- ▶ Functional dependency

161. GRANT SELECT, UPDATE(Designation) ON Employee TO Amali,Hiruni WITH GRANT PTION;

What does this SQL statement do?

- ▶ Grant permission to Amali,only to retrieve data from Employee table and grant permission to Hiruni, only to update the designation from Employee table.
- ▶ Grant permission to Hiruni in order to grant, select and update permission to Amali.

▶ **Grant permission to Amali & Hiruni to update designation of employees in the Employee table.**

- ▶ Grant permission to Amali and Hiruni to update all data except designation in Employee table.

162. Which key word is available in SQL to enforce referential integrity?

▶ **Check**

- ▶ Primary Key
- ▶ Set Default
- ▶ Unique

163. Which of the following statements are Data Definition Language command?

- ▶ INSERT
- ▶ UPDATE
- ▶ GRANT

▶ **TRUNCATE**

164. How many clustered index(es) do each database table have?

- ▶ 2
- ▶ 3
- ▶ 5
- ▶ **1**

165. Which of the following is true about DELETE command?

- ▶ is DDL Command.
- ▶ Resets identity of the table.
- ▶ cannot activate a trigger.

▶ **Can be Rolled back.**

166. Which of the following will be deleted relating to a table if you use TRUNCATE command?

- ▶ **all rows in a table**
- ▶ indexes

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- ▶ table structure and its columns
 - ▶ constraints
167. Which of the following is not a feature of TRANSACTION?
- ▶ Users should be able to regard the execution of each transaction as atomic.
 - ▶ Each transaction, run by itself.
 - ▶ must preserve the consistency of the database
 - ▶ **dependant on other concurrent transactions**
168. Which of the following gives all the fields from employee table named as EMP?
- ▶ **select * from EMP;**
 - ▶ select emp* from EMP'
 - ▶ select emp_id where EMP;
 - ▶ select * where EMP;
169. Suppose there are 4 fields in a table named CUST (customer_id, first_name, last_name, phone). Which of the following gives all the information of the customers in the table whose last name is ALI?
- ▶ **SELECT * FROM CUST WHERE last_name='ALI';**
 - ▶ SELECT * FROM CUST WHERE last_name=ALI;
 - ▶ SELECT * FROM CUSTOMER WHERE name=ALI;
 - ▶ SELECT * FROM CUSTOMER WHERE last_name=ALI;
170. Identify the correct statement with respect to normalization.
- ▶ Normalization is a formal technique that can be used only at the starting phase of the database design.
 - ▶ Normalization can be used as a top-down standalone database design technique.
 - ▶ The process of normalization through decomposition must achieve the lossless join property at any cost whereas the dependency reservation property is sometimes sacrificed.
 - ▶ **The process of normalization through decomposition must achieve the dependency reservation property at any cost whereas the lossless join property is sometimes sacrificed.**
171. Which of the following is not true with respect to denormalization?
- ▶ A denormalized data model is not the same as a data model that has not been normalized
 - ▶ **Denormalization takes place before the normalization process**
 - ▶ It is an attempt to optimize the performance of database
 - ▶ Denormalization process can not be initiated before the Database design
172. Which of the following is incorrect with respect to indexed sequential files?
- ▶ New records are added to an overflow file
 - ▶ Record in main file that precedes it is updated to contain a pointer to the new record

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- ▶ The overflow is merged with the main file during a batch update
 - ▶ **Multiple indexes for the same key field cannot be setup**
173. Which of the following types of partitioning reduces the chances of unbalanced partitions?
- ▶ vertical
 - ▶ List
 - ▶ **Hash**
 - ▶ Range
174. Which of the following is INCORRECT with respect to file systems?
- ▶ **At the physical level, pointer or hashed address scheme may be employed to provide a certain degree of data independence at the user level.**
 - ▶ A logical record is concerned with efficient storage of information in the secondary storage devices.
 - ▶ Some physical organisations use pointers to record blocks to locate records on disk.
 - ▶ The efficiency of a file system depends on how efficiently operations such as retrieve, insert, update, delete may be performed on the information stored in the file.
175. which of the following is correct regarding Dataflow diagram?
- ▶ **Single DFD is required to represent a system**
 - ▶ The dataflow must be bidirectional
 - ▶ Created at increasing levels of detail
 - ▶ Used to represent the relationships among the external entities
176. Select the correct statement among the following on proper naming of schema constructs:
- ▶ Entity type name applies to all the entities belonging to that entity type and therefore a plural name is selected for entity type.
 - ▶ **In the narrative description of the database requirements, verbs tend to indicate the names of relationship types.**
 - ▶ The nouns arising from a database requirement description can be considered as names of attributes.
 - ▶ Additional nouns which are appearing in the narrative description of the database requirements represent the weak entity type names.
177. _____ is a control that enables users to select one option from an associated list; users can also type an option.
- ▶ **Combo box**
 - ▶ Button
 - ▶ Text box
 - ▶ Static area

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178. Which is not the function of Database Management System?
- A user accessible Catalog
 - Concurrency Control Services
 - **Failure Response Service**
 - Support for Data Communication
179. The conceptual database design can be transformed into any _____.
- **Data model**
 - Database design
 - E-R model
 - Entity set
180. Which is the second stage in the database development process?
- Database design
 - Preliminary Study
 - Physical Design
 - **Requirement Analysis**
181. Functional dependencies under interference rule reflexivity are called _____ dependencies.
- Augmentation
 - Transitivity
 - Projectivity
 - **Trivial**
182. If many instances of the “Book” entity are associated with the many instances of the “Student” entity, then the relationship between them is:
- One to one
 - One to many
 - **Many to many**
 - Many to one
183. Which of the following constraints enforces entity integrity?
- **PRIMARY KEY**
 - FOREIGN KEY
 - CHECK
 - NOT NULL
184. Unary operations involves
- **Only one relation**
 - Only two relations

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- More than two relations
 - Not more than five relations
185. A _____ entity has a primary key that is partially or totally derived from the parent entity in the relationship.
- Strong
 - **Weak**
 - Business
 - Relationship
186. In _____ appropriate data model is chosen.
- ERD
 - Conceptual Database Design
 - **Logical Database Design**
 - DFA
187. Which of the following is drawback of standardization?
- Difficult to understand
 - Uniformity
 - **Lack of uniqueness**
 - Easy to develop applications
188. Recursive relationship is also called _____.
- **Unary**
 - Ternary
 - Primary
 - Secondary
189. The foreign key attribute, which is present as a primary key in another relation is called as _____ of the foreign key attribute.
- a. Binary relation
 - b. Composite relation
 - c. **Home relation**
 - d. Recursive relation
190. DFD does not provide us a way to represent _____
- a. entities
 - b. **Decisions**
 - c. Data stores
 - d. Processes

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191. A _____ is used to maintain a connection between the users of the database system.
- Virtual server
 - File server
 - Client server
 - FTP server
192. Which of the following is an advantage of using the Traditional File Organization?
- a. Time consuming
 - b. Data security
 - c. Simplicity**
 - d. Efficiency
193. Which of the following is the input to Analysis Phase?
- a. DFD**
 - b. Logical database design
 - c. Physical database design
 - d. Data model
194. Name and _____ are part of the definitions of an attribute.
- a. Domain**
 - b. Symbol
 - c. Property
 - d. Entity instance
195. Which of the following most certainly implies the need for an entire table to implement?
- a. A ternary relationship**
 - b. A recursive relationship
 - c. An identify relationship

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- d. A binary relationship
196. Core of the Database Architecture is _____
- a. Internal level
 - b. External level
 - c. Conceptual level
 - d. ANSI SPARK
197. _____ is same as equi-join with a slight difference.
- a. Natural join
 - b. Semi join
 - c. Outer join
 - d. Theta join
198. Conceptual database design is implemented using a _____.
- Hierarchical data model
 - Semantic data model
 - Relational data model
 - Network data model
199. Which constraint is generally used for efficiency purposes in the data entry process?
- Null value
 - Integer value
 - Default value
 - String value
200. 3 NF relation is converted to BCNF by
- a. Removing composite keys

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- b. Removing multivalued dependencies
 - c. Dependent attributes of overlapping composite keys are put in a separate relation
 - d. Dependent non-key attributes are put in a separate table
201. Each _____ of a table contains atomic/single value.
- a. Cell
 - b. Row
 - c. Column
 - d. Record
202. A relation is said to be in BCNF when
- a. It has overlapping composite keys
 - b. It has no composite keys
 - c. It has no multivalued dependencies
 - d. It has no overlapping composite keys which have related attributes
203. Which one of the following is not a part of three-level architecture?
- a. External level
 - b. Conceptual level
 - c. Internal level
 - d. Physical level
204. Which of the following is INCORRECT about naming entities?
- a. Singular nouns are used
 - b. Write in capitals
 - c. Organization specific names can be used
 - d. Always use abbreviations as they are convenient

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205. An instance is
- a. A particular occurrence of an entity
 - b. A special type of relation
 - c. An attribute of an entity
 - d. Any particular entity
206. _____ is an example of metadata
- a. Ali
 - b. Address
 - c. Person
 - d. Student
207. Level of data at which entities or objects exist in reality is called
- a. Real world data
 - b. Schema for real world data
 - c. Meta data
 - d. Data about data
208. How many types of dependencies are?
- a. One
 - b. Two
 - c. Three
 - d. Four
209. In _____ join, only selected rows of a relation are made cross product with second relation.
- a. Normal
 - b. Theta

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- c. Outer
 - d. Semi
210. Which of the following is not a key?
- a. Super key
 - b. Alternate key
 - c. Integrity constraint key
 - d. Primary key
211. A collection of concepts that can be used to describe the structure of a database
- a. Database
 - b. DBMS
 - c. Data model
 - d. Data
212. Any combination of attributes with super key is _____
- a. Primary key
 - b. Foreign key
 - c. Super key
 - d. Candidate key
213. Binary relationships are those, which are established between
- a. One entity type
 - b. Two entity type
 - c. Three entity type
- Unlimited entities
214. _____ are called participants, when enrolled in a relationship.

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- a. Attributes
 - b. Relations
 - c. Entities**
 - d. Keys
215. In case of Context-level Diagram, the system is represented by
- a. One process atleast
 - b. Two processes atleast
 - c. One process only**
 - d. Any number of processes
216. Collection of raw facts is called _____.
- a. Information
 - b. Object
 - c. Output
 - d. Data**
217. A software package designed to store and manage database
- a. Database
 - b. DBMS**
 - c. Data model
 - d. Data
218. In _____ join common attributes appear twice in the output with selected rows.
- a. Normal join
 - b. Semi join
 - c. Natural join

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d. Equi join

219. Within a table, each primary key value _____.

- a. Is a minimal super key
- b. Is always the first field in each table
- c. Must be numeric

d. Must be unique

220. _____ is not an operation of relational algebra.

a. Addition

- b. Union
- c. Cartesian product
- d. Set difference

221. Candidate keys which are not selected as primary key are called _____

- a. Secondary keys
- b. Foreign keys

c. Alternate keys

Composite keys

222. Major benefits of data sharing is:

- a. Data of same applications placed at same place.
- b. Data of same applications placed at different places

c. Data of different application places at same place

- d. Data of different applications stored at placed place

223. Functional dependency between two attributes or sets of attributes i.e. Q and P is represented as _____.

a. $Q \rightarrow P$

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- b. Q P
 - c. Q * P
 - d. Q + P
224. Which of the following is not the component of Relational Data Model?
- a. Integrity Constraint
 - b. Manipulation Language
 - c. Relation / Table
 - d. Domain Constraint
225. The attribute that is calculated from other attribute is called _____.
- a. Derived attribute
 - b. Multi-valued attribute
 - c. Composite attribute
 - d. Simple attribute
226. Consider the two attributes “CNIC_NO” and “Registration_NO”. Both the attributes can be used for the unique identification. Now if the user selects the “CNIC_NO” as primary key, then “Registration_NO” is a ____ key.
- a. Foreign
 - b. Secondary
 - c. Primary
 - d. Alternative
227. Which of the following constraint is included in the definition of the table?
- a. Default value
 - b. Foreign key
 - c. Null

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- d. Domain
228. The database deals with large amount of data. This property is called
- a. Database design
 - b. Scalability**
 - c. Concurrency
 - d. Robustness
229. Which one of the following is NOT a characteristic of meta data?
- Data about data
- Describes a data dictionary
- Self-describing
- Includes user data**
230. Theta join is denoted mathematically as _____.
- a. $R \times S$
 - b. $R \bowtie X$
 - c. $R \bowtie X \bowtie S$**
 - d. $R \bowtie X \bowtie RS$
231. In cross reference matrix transitions are specified on _____ and database objects are specified on _____.
- a. Y axis, X axis
 - b. X axis, Y axis
 - c. X axis, X axis
 - d. Y axis, Y axis**
232. Each component of DBMS performs _____ functions.
- a. Similar

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- b. Different
- c. Identical
- d. Computational
233. Which of the following data model is not record based?
- a. Hierarchical Data Model
- b. Network Data model
- c. Semantic Data model
- d. Relational Data model
234. The basic purpose of diamond in ER diagram is to show the _____.
- a. Attributes
- b. Relationships
- c. Composite attribute
- d. Entity set
235. Which of the following tool is used to design conceptual database design?
- a. SQL
- b. MS Access
- c. Oracle
- d. This model is independent of any tool
236. In “one to many” cardinality one instance of a relation is mapped with _____.
- a. Many instances of second entity type
- b. One instance of second entity type
- c. Primary key of second relation
- d. Foreign key of second relation

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237. Cross reference matrix is developed at the _____ stage of the database.
- a. Analysis
 - b. Designing**
 - c. Implementation
 - d. Application
238. The population of the data of the organization for which the database is created is called the _____ of the database.
- a. Extension**
 - b. Intension
 - c. Model
 - d. Schema
239. User rights information is stored in
- a. Physical database
 - b. Catalog**
 - c. Logical database
 - d. Buffer
240. Logical data independency provides independency to change _____ model.
- a. External
 - b. Logical
 - c. Conceptual**
 - d. Internal
241. In natural join the common attribute in the output table appears _____.
- a. Twice
 - b. Three times

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- c. Four times
- d. Once**
242. Which levels are mostly used for detailed DFD?
- a. Level-0, Level-1**
- b. Level-1, Level-2
- c. Level-2, Level-3
- d. Level-3, Level-4
243. By default, a non-key attribute in a relation can have _____ value.
- a. Binary
- b. Null**
- c. Character
- d. Integer
244. The three levels architecture is useful for _____.
- a. Arranging the data in an organized manner
- b. Hiding the details of internal systems**
- c. Breaking the data access restriction
- d. Storing definitions of the structures
245. With the help of _____ technique data values with the smaller sized codes can further reduce the space needed by the data for storage in the database.
- Compression**
- Expansions
- Negation
- Extension
246. If an entity is linked with itself, than it is called _____ relationship.

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- a. Binary
 - b. Ternary
 - c. Nary
 - d. Recursive**
247. Duplication of data in controlled redundancy is controlled and _____.
- a. Deliberate**
 - b. Necessary
 - c. Precise
 - d. Unintentional
248. Teleprocessing is a sub-type of _____.
- a. Single user database
 - b. Multi-user database**
 - c. File server
 - d. Client server
249. In an ERD, the focus is on the _____ and the relationships between them.
- a. Attributes
 - b. Entities**
 - c. Keys
 - d. Indexes
250. The most widely used conceptual model is the _____ model.
- a. Implementation
 - b. ER**
 - c. Object oriented
 - d. Internal

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251. Student and book are two entities, what is the cardinality between the two?
- a. Many to one
 - b. One to many
 - c. Many to many
 - d. One to one
252. RDM is a simple there is just one structure and that is _____.
- a. A relation or a table
 - b. E-R model
- Attributes
Data model
253. A description on a particular collection of data using the given data model.
- a. Database
 - b. Relation
 - c. Schema
 - d. None
254. Consider thy key “CNIC, Name” and choose the best option that describes the key most effectively.
- a. The given key is a super key and alternate key.
 - b. The given key is not a super key but a candidate key.
 - c. The given key is a super key and candidate key as well.
 - d. The given key is a super key but not a candidate key.
255. Normalization is a process of restricting a relation to
- a. Minimize duplication of data in a database
 - b. Maximize duplication of data to ensure reliability

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- c. Make if of uniform size
 - d. Allow addition of data
256. Unary relationship involves a single entity it is also called _____.
- a. One to one relationship
 - b. One to many relationship
 - c. Many to many relationship
 - d. Recursive relationship
257. Which of the following is a part of a DFD but not included in the ERD?
- a. The attribute having a single instance
 - b. The external entity having a single instance
 - c. The relationship having a single instance
 - d. The role having a single instance
258. The database management system (DBMS) is used to
- a. Store the data
 - b. Access the data
 - c. Manage its users
 - d. All of above
259. In cross reference matrix attributes are mention on _____ and reports are mention on _____.
- e. Y axis, X axis
 - f. Y axis, Z axis
 - g. X axis, Y axis
 - h. X axis, Z axis
260. A table can be logically connected to another table by defining a _____.

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- a. Hyper link
- b. Common attribute
- c. Primary key
- d. Super key

261. Data Redundancy means

- a. Security of data
- b. Duplication of data
- c. Management of data
- d. Recovery of data

86. Which of the following is a type of dependency?

- a. DBMS
- b. ERD
- c. DFD
- d. Referential

263. In your opinion, why relational database is widely acceptable?

- a. Due to its complexity
- b. Due to its approach
- c. Due to its dependencies
- d. Due to its strength

264. _____ is the first comprehensive complete database design.

- a. Logical database design
- b. Relational database design
- c. Conceptual database design
- d. Hierarchical database design

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265. How data security can be assured in the database?

- a. By hiding data from all
- b. Through concurrent access of users
- c. By asking users not to share things
- d. Implementing encryption algorithms

266. The attributes whose value is not stored in a database is known as _____ attribute.

- a. Stored
- b. Single value
- c. Multi value
- d. Derived

267. Logical database design, like conceptual database design is our _____

- a. Data model
- b. Weak entity set
- c. Strong entity set
- d. Database design

268. If a single instance of “student” is associated with the many instances of the “subjects” entity, then the relationship between them is:

- a. One to one
- b. One to many
- c. Many to many
- d. Many to one

269. The conceptual database design is drawn through _____.

- a. Data model

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b. ER model

c. Database design

d. Entity set

270. A relational database is

a. One that consists of two or more tables

b. A database that is able to process tables, queries, forms, reports and macros

c. One that consists of two or more tables that are joined in some way

d. The same as a flat file database

271. Database is a computerized representation of any organization's flow of _____ and storage of _____.

a. Data, information

b. Details, data

c. Data, details

d. Information, data

272. In which stage of the database development process logical design is created?

a. Requirement analysis

b. Database design

c. Physical design

d. Implementation

273. Which of the following is NOT an entity?

a. Employee

b. Hobby

c. Student

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d. Playground

274. After moving the determined columns from the original table to the new table while converting to 2NF, the determinate becomes the _____ of the new table.

a. Primary key

- b. Foreign key
- c. Secondary key
- d. Composite key

275. The select operation works horizontally on the table, on the other hand the _____ operates on a single table vertically.

a. Binary operator

b. Project operator

- c. Join operator
- d. Select operator

276. Free standing data dictionary is created by

- a. DFD
- b. Database
- c. CASE tools
- d. Cross reference matrix

277. A patient can be an outdoor or indoor. Analyze this statement and tell what type of constraint will be applied on patient?

a. Total completeness

- b. Partial completeness
- c. Total disjoint
- d. Partial disjoint

278. If $A \rightarrow B$ and $A \rightarrow C$, then $A \rightarrow BC$. The inference Rule applies is:

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- a. Union
- b. Decomposition
- c. Augmentation
- d. Reflexivity

279. Which of the following is the correct abbreviation of ERD?

- a. Entity relationship diagram
- b. Entity relation diagram
- c. Entity reality diagram
- d. Entity real distance

280. Database relation is also represented in a two dimensional structure called

- a. Row
- b. Table
- c. Entity
- d. Column

281. Data about data is metadata

- a. True
- b. False

282. Which of the following describes the job of a database administrator?

- a. Development, implementation operation of the physical database
- b. Creation of the system catalog
- c. Monitoring and controlling database security and authorization: setting up controls to ensure the quality and integrity of data
- d. All of the above

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283. Each table must have a _____ key.

- a. Primary
- b. Secondary
- c. Logical
- d. Foreign

284. A relational database system is based on the concept(s) of:

- a. A network of data records
- b. Nested tables
- c. Tables, row and columns
- d. A tree-like structure of data

285. $A \rightarrow BC$ and $A \rightarrow B$, then $A \rightarrow C$ follow _____ inference rule.

- a. Augmentation
- b. Transitivity
- c. Projectivity
- d. Additivity

286. Suppose, we have two entities “shape” and “triangle”, then which of the following is a correct statement?

- a. Shape is a super type entity and triangle is a sub type entity
- b. Shape is a sub type entity and triangle is a super type entity
- c. Shape and triangle both are super type entities
- d. Shape and triangle both are sub type entities

287. The entity that is NOT dependent on any other entity for its existence is known as _____ entity.

- a. Weak
- b. Strong

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- c. Derived
- d. Dependent

288. In cross reference matrix attributes are specified on _____

- a. X axis
- b. Y axis
- c. Z axis
- d. None of the above

289. Which of the following clarify the semantics of a relationship?

- a. Entity
- b. Roles
- c. Relationship set
- d. Participants

290. How many types of cardinality is specified about relationship?

- a. Two
- b. One
- c. Three
- d. Four

291. Which of the following is NOT a component of a DFD?

- a. Dataflow
- b. Datastore
- c. External entities
- d. Relationship between external entities

292. Which of the following provides us the facility to add properties of one entity to another entity automatically?

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- a. Abstraction
- b. Encapsulation
- c. Inheritance
- d. Dependencies

293. If there is more than one relationship between two entities and we mentioned role on the relationship link, then it is called:

- a. Unary relationship
- b. Binary relationships
- c. Ternary relationships
- d. Multiple relationships

294. Which one of the following is not an advantage of DBMS

- a. Data consistency
- b. Recovery procedure is difficult
- c. Faster development of new applications
- d. Better backup and recovery procedures

295. In many to many relationship a third table is created for the relationship, which is also called as _____

- a. Binary relation
- b. Associative entity type
- c. Unary relationship
- d. Composite attributes

296. When one entity instance of another entity for its existence, then it is called

- a. Existence dependency

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- b. Identifier dependency
 - c. Referential dependency
 - d. Acceptance dependency
297. Relational data model is widely accepted due to its mathematically proven foundation and its _____
- a. Complexity
 - b. Simplicity**
 - c. Hierarchical structure
 - d. Traditional structure
298. If an entity “motor cycle” is associated with at most one “driver”, then the relationship between these two entities is:
- a. One to one**
 - b. One to many
 - c. Many to many
 - d. Many to one
299. Database application is a program which is used for performing certain operations such as
- a. Insertion of data
 - b. Extraction of data
 - c. Updating the data
 - d. All of above**
300. Creating the relationships between new tables and their predecessors through the use of foreign keys is general requirements of _____
- a. First normal form
 - b. Second normal form**
 - c. Third normal form

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d. Fourth normal form

301. In _____ the domains of attributes of a relation are atomic, that is they consist of single units that cannot be broken down further.

a. First normal form

b. Second normal form

c. Third normal form

d. Augmentation

302. Atomicity is a feature of _____.

a. 1NF

b. 2NF

c. 3NF

d. BCNF

303. The _____ can see entire information structure of the database.

a. DBA

b. DBTG

c. Database user

d. External viewer

304. The attribute whose value is not stored in a database is known as _____ attribute.

a. Stored

b. Single value

c. Multi value

d. Derived

305. _____ are the structure defined for placing data in the attributes while designing physical design of database.

a. Objects

b. Variables

c. Attributes

d. Data types

306. Suppose a relation has five columns and ten rows, select the correct option to identify cardinality of relation.

a. Five

b. Ten

c. Fifteen

d. Twenty

307. Which feature of database provides conversion from inconsistent state of DB to a consistent state ensuring minimum data loss?

a. User accessible catalog

b. Data processing

c. Recovery service

d. Authorization service

308. The maximum PL/SQL size of data type "VARCHAR2" in DBMS is _____ bytes

a. 42767

b. 52767

c. 32767

d. 28767

309. _____ is state of database where a “course” cannot be inserted in the table, because this course has not been registered to any “student”.

- a. Insertion anomaly
- b. Deletion anomaly
- c. Updation anomaly
- d. Redundancy

310. The maximum PL/SQL size of data type “BLOB” in DBMS is _____

- a. 4 gigabytes
- b. 8 gigabytes
- c. 10 gigabytes
- d. 12 gigabytes

311. _____ states that in a relation no attributes of a primary key (PK) can have a null value.

- a. Referential integrity constraint
- b. Null constraint
- c. Domain constraint
- d. Entity integrity constraint

312. A database state where deletion of the information about the student record deletes the course information as well is called _____.

- a. Insertion anomaly
- b. Updation anomaly
- c. Redundancy
- d. Deletion anomaly

313. An entity type is

- a. Defined when the database is actually constructed

- b. A specific type such as an integer, text, date, logical etc.
- c. A coherent set of similar objects that we want to store data on (e.g. STUDENTS, COURSE, CAR)
- d. Defined by the database designer

314. “select” and “project” are the examples of _____

- a. Unary operation
- b. Binary operation
- c. Ternary operation
- d. Nary operation

315. External scheme evolves as user needs are _____ over the time.

- a. Ends
- b. Modified
- c. Switch
- d. Stable

316. An attribute that is the collection of some other attribute(s) is known as _____ attributes.

- a. Multi-valued
- b. Single-valued
- c. No-valued
- d. Composite

317. Which of the following is correct regarding Dataflow diagram?

- a. Single DFD is required to represent a system
- b. The dataflow must be bidirectional

c. Created at increasing levels of detail

d. Used to represent the relationships among the external entities

318. _____ are those attributes that are a combination of two or more than two attributes.

a. Default value

b. Null value

c. Primary key

d. Composite attributes

319. Controlling redundancy in a database management system DOES NOT help to

a. avoid duplication

b. avoid unnecessary wastage of storage space

c. avoid unauthorized access to data

d. avoid inconsistency among data

320. Which of the following concepts is applicable with respect to 3NF?

a. Full functional dependency

b. Any kind of dependency

c. Transitive dependency

d. Partial functional dependency

321. Identify the operation which is NOT one of the parts of the five basic set operations in relational algebra?

a. Join

b. Union

c. Cartesian Product

d. Set Difference

322. Making a change to the conceptual schema of a database but not affecting the existing external schemas is an example of

- a. Physical data independence.
- b. Concurrency control.
- c. Logical data independence.
- d. Functional dependency

323. For a third normal form we concentrate on relations with one _____ key, and we eliminate transitive dependencies

- a. Candidate
- b. Composite
- c. Super key
- d. Primary key

324. The entity relationship diagram is used to graphically represent the _____ database model.

- a. Condensed
- b. Physical
- c. Logical
- d. Conceptual

325. The _____ determines that the link between two entities is optional or mandatory.

- a. Maximum cardinality
- b. Minimum cardinality
- c. Maximum degree
- d. Minimum degree

326. Select the most appropriate statement. Which of the following data model is used to design logical database design?

- a. Relational
- b. Hierarchal
- c. Object oriented
- d. Any model can be used

327. Truncate is an alternative of Delete command.

- a. True
- b. False

328. The most recently accessed data from the disk (as well as adjacent sectors) is stored in a _____.

- a. Memory buffer
- b. EPROM
- c. ROM
- d. Hard disk

329. Browser Based & Non-Browser/Simple are two different types of _____.

- a. Forms
- b. Language
- c. Interface
- d. Programs

330. Which of the following is incorrect about alter table statement?

- a. Cannot be used to modify type or size of an existing column
- b. Can be used to delete a column

- c. Cannot be used to create a new table
- d. Can be used to add column in the existing table

331. What does the abbreviation DBMS stand for?

- a. Database management software
- b. Data borrowing and movement software
- c. Digital base mapping system
- d. Database management system

332. Suppose we have two tables T1 and T2, Tuples of T1 that do not match some row in T2 will not appear in

- a. Outer join
- b. Inner join
- c. Both I and II
- d. None of the above

333. Value of a function in SQL is always determined by the input parameters

- a. True
- b. False

334. Which of the following is true about creating database in MS Access?

- a. First we will run MS Access and select New option from the file. Next it will ask the name of database.
- b. After running MS Access, create database option is selected directly
- c. Go to the tool option of MS Access and select create Database option with suitable name
- d. Click on the file menu, select database option and then click it

335. In SQL queries, while creating tables or relations in database, key columns may be specified by

- a. Null

b. Not Null

c. Data Type

d. None of the above

336. In SQL, which command is used to modify the rows of tables.

a. UPDATE

b. INSERT

c. BROWSE

d. APPEND

337. Which of the following is one of the purposes of using DDL commands?

a. Inserting records into databases

b. Updating records into databases

c. Manipulating databases

d. Creating and destroying databases

338. The _____ should be user friendly. Data integrity must be ensured and checks can be applied within the tables.

a. Input forms

b. Computer language

c. Application programming

d. Database

339. A memory cache, sometimes called a cache store or _____.

a. ROM

b. DROM

c. RAM

d. Hard disk

340. According to his/her level of knowledge/understanding, how many types of users are there _____?

- a. Three
- b. Four
- c. Six
- d. Two

341. DML does not used to:

- a. Add new rows to tables
- b. Retrieve rows from table
- c. Modify the rows of tables
- d. Alter a table definition

342. Which of the following prevents duplicate values to be displayed as a result of an SQL statement?

- a. DISTINCT
- b. DELETE
- c. UPDATE
- d. ALTER

343. GRANT belongs to which type of SQL commands classification

- a. DML
- b. DDL
- c. DCL
- d. DQL

344. _____ user interface is preferred over _____ user interface with respect to user.

- a. Easy to understand, efficient

- b. Hard to understand, efficient
- c. Easy to understand, effective
- d. Hard to understand, effective

345. Which of the following is not true regarding clustering?

- a. It increases the efficiency since related records are placed close to each other
- b. Clustering makes records, difficult to access
- c. Suitable to relatively static situations
- d. It is a process, which means to place records from different tables to place in adjacent physical locations

346. The _____ condition allows to retrieve values within a specific range.

- a. AND
- b. LIKE
- c. BETWEEN
- d. FROM

347. WORM Stands for _____.

- a. Write on. Read memory
- b. Write-once, read-many
- c. Write only memory
- d. Read only memory

348. Identify the language which is used to specify database schema.

- a. DCL
- b. DML
- c. DDL
- d. None of the above

349. At which design level de-normalization will take place.

- a. Conceptual design
- b. Logical design
- c. Physical design
- d. All of the above

350. The _____ keyword is used in SELECT statement to return different values.

- a. LIKE
- b. IN
- c. DISTINCT
- d. WHERE

351. "It should be user friendly and user must not search for required buttons or text boxes" this statement is about _____.

- a. Application program
- b. User friendly interface
- c. Language
- d. System program

352. Which of the following clauses allows to sort the records in result set?

- a. Where
- b. Order By
- c. From
- d. Having

353. Data manipulation language (DML) is the set of commands used to maintain and query a database including updating, inserting, modifying and retrieving data.

- a. True
- b. False

354. The _____ function helps reduce the need to use multiple OR conditions.

- a. Like
- b. IN
- c. AND
- d. BETWEEN

355. Correct statement for creating table in Microsoft SQL server is:

- a. CREATE TABLE Customer
(SID integer PRIMARY KEY,
Last_Name varchar(30),
- b. CREATE TABLE
Customer (SID integer,
Last_Name varchar(30),
- c. CREATE Customer
(SID integer, Last_Name
varchar(30),
- d. All of the above

356. Which of the following is not DML command?

- a. Select
- b. Update
- c. Delete
- d. Truncate

357. In SQL, which command is used to delete rows from table.

- a. DELETE
- b. REMOVE
- c. TRUNCATE
- d. Both I and II

358. Users who know what to do and how to do it are called _____

- a. Beginners
- b. Intermediate
- c. Experts
- d. New

359. There are _____ types of user interfaces.

- a. Three
- b. Two
- c. Four
- d. One

360. DML stands for _____.

- a. Dynamic Modeling Language
- b. Data Manipulation Language
- c. Data Management Language
- d. Domain Modeling Language

361. Columns used to uniquely identify individual rows of a given table, may be specified to be NOT NULL.

- a. True
- b. False

362. Which of the following syntax of the functions in SQL is used to add column values?

- a. COUNT(*)
- b. COUNT(expression)
- c. MAX(expression)
- d. SUM(expression)

363. SQL is used for:

- a. Creating, managing and deleting tables and manage the relationships among the stored data.
- b. Generating queries, organizing, managing and retrieving data stored in a database.
- c. Maintaining data integrity and coordinate data sharing.
- d. All of the above

364. Which of the following function falls in the category of Aggregate functions.

- a. SUM
- b. MIN
- c. MAX
- d. All of the above

365. REVOKE is a _____ statement.

- a. Data Definition
- b. Control Access
- c. Data manipulation
- d. Data description

366. SQL stands for _____.

I - Structured Query Language II – Standard Query Language III- Status Query Language

- a. ONLY I
- b. ONLY II
- c. BOTH I AND II
- d. ONLY III

367. What happens if the WHERE clause is omitted from a DELETE statement?

- a. All records from the table are deleted
- b. No record from the table will be deleted
- c. First record of the table will be deleted
- d. The statement will not be executed and will give a syntax error

368. General reasoning for horizontal or vertical partitioning is.

- a. Increasing the consistency
- b. Decreasing the query response time
- c. Smaller tables are more efficient to process as compared to the larger tables.
- d. All of the above

369. We should not compromise _____ over efficiency.

- a. Consistency
- b. Normalization
- c. Query response time
- d. All of the above

370. Which language is used to permit or prohibit access to a table?

- a. DCL
- b. DDL
- c. DML
- d. All of the above.

371. Which of the following is a correct way of selecting all the columns from a table called PERSONS?

- a. SELECT FROM * Persons
- b. SELECT * FROM Persons

- c. SELECT * WHERE Persons
- d. SELECT WHERE * Persons

372. Which of the following is used to retrieve and insert information from database?

- a. DML
- b. DDL
- c. DCL
- d. Both DML and DDL

373. Which of the following statements creates a database named IMDB.

- a. CREATE DATABASE IMDB;
- b. CREATE DB IMDB;
- c. ADD DATABASE named IMDB;
- d. CREATE IMDB DATABASE;

374. Which of the following is not a part of an INSERT statement?

- a. INTO
- b. VALUE
- c. INSERT
- d. Modify

375. Objective of an order by clause is to display or arrange output of a select statement in a particular order.

- a. True
- b. False

376. Consider a table named "emp" having fields Empname, EmpID, Age, salary.

Which of the following is true if the following SQL statement tries to execute?

- SELECT *

- FROM emp
- WHERE Empname='ALI'
- ORDERBY Age;
- a. The statement displays the entire fields from emp in which the Empname is ALI in ascending order of their age
- b. The statement has a syntax error**
- c. The statement displays the entire fields from emp in which the Empname is ALI in any order
- d. The statement displays the entire fields from emp in which the Empname is ALI in descending order of their age

377.Truncate command responses time is _____ as compared to delete command.

- a. Poor
- b. Same
- c. Better**
- d. Worst

378.Functions in SQL return a single value

- a. True**
- b. False

379.Is the given SQL Statement prompt error?

- a. Logical Error
- b. No Error**
- c. Parameter Error

d. Time out Error

380. Which of the following SQL statements used to control access to the data and to the database

a. GRANT

b. REVOKE

c. Both GRANT and REVOKE

d. SELECT

381. _____ types of caching are commonly used in personal computers:

a. Two

b. Three

c. Four

d. Five

382. Which of the following is the correct syntax for adding a new column into an existing table.

a. ALTER TABLE table_name { ALTER [COLUMN] column type [(size)] [DEFAULT default] }

b. ALTER TABLE table_name { ADD [COLUMN] column type [(size)] [DEFAULT default] }

c. Both I and II.

d. None of the above.

383. GRANT is a _____ command.

a. DDL

b. DML

c. DCL

d. None of the above

384. Consider the two relations,

Supplier (S_no, S_name, Contact_No, Address)
and Supply (S_no, Item_no).

Which of the following statements give(s) a list of supplier names supplying the item with Item_no '555'?

- a. `SELECT S_name FROM Supplier WHERE Item_no='555'`
- b. `SELECT S_name FROM Supplier, Supply WHERE Supplier.S_no=Supply.S_no AND Item_no='555'`
- c. `SELECT S_name FROM Supplier WHERE S_no EXISTS (SELECT S_no FROM Supply WHERE Item_no='555')`
- d. `SELECT S_name FROM Supplier WHERE S_name EXISTS (SELECT S_name FROM Supply WHERE Item_no='555')`

385. Which of the following is NOT a DDL command?

- a. Create DB
- b. Create table
- c. Delete
- d. Drop

386. Which of the following is not an aggregate function

- a. AVG
- b. SUM
- c. UPPER
- d. MAX

387. Identify the basic part(s) of a SELECT statement?

- a. SELECT
- b. FROM

- c. Both SELECT and FROM
 - d. DISTINCT
388. The _____ operator allows to use wild cards in the where clause of an SQL statement.
- a. IN
 - b. FROM
 - c. LIKE
 - d. None of the above.
389. Update command belong to which type of classification
- a. DML
 - b. DDL
 - c. DCL
 - d. DQL
390. When the power is turned off content of _____ is lost.
- a. Non volatile storage
 - b. Volatile storage
 - c. Permanent storage
 - d. Hard disk storage
391. Which of the following is used with INSERT command to insert values in a DB table?
- a. ONTO
 - b. INTO
 - c. UPTO
 - d. WITH
392. Which of the following is used to filter rows according to some condition(s)?

- a. SELECT
- b. FROM
- c. WHERE
- d. UPDATE

393. Which of the following is the string function in SQL

- i. COUNT
- ii. LEN
- iii. SQRT
- iv. SIN

394. Cache is a portion of memory made of high speed _____ instead of the slower and cheaper _____ used for man memory.

- i. RAM,ROM
- ii. ROM,RAM
- iii. PROM,EPR0M
- iv. Static RAM(SRAM),DRAM

395. Program written to perform different requirement created by the users / Organization are called _____.

- i. System program
- b. Chip Program
- c. Application Program
- d. Low level program

396. The general activities, which are performed during the development of _____ Editing, Display, Processing related activities and Report.

- i. Application program

- ii. Hardware Program
- iii. Micro Kemal program
- iv. Database program

397. Text base & Graphical User Interface (GUI) most commonly called as Forms are two different type of _____

- i. Application Program
- ii. System program
- iii. User interface
- iv. Language

398. Forms are used in application program, how many type of forms are available _____?

- i. Four
- ii. Five
- iii. One
- iv. Two

399. An effective user interface minimizes the ___ users requires to learn and implement the system.

- i. Space
- ii. Time
- iii. Complexity
- iv. Efficiency

400. In vertical partitioning if we divide a table into two vertical partitions then efficiency of those applications will be reduced which is used to:

- a. Access data from both the vertical partitions

b. Access data from first vertical partition

c. Access data from second vertical partition

d. None of the above

401. Consider a table named “emp” having fields Empname, EmpID, Age, salary.

Which of the following is true if the following SQL statement tries to execute?

```
SELECT *  
FROM emp
```

```
WHERE Empname='ALI';
```

a. The statement has a syntax error

b. The statement only displays the EmpID of those employees whose name is
ALI

c. The statement displays the entire fields from emp in which the Empname is
ALI

d. The statement must have an ORDERBY clause

402. A _____ index determines the storage order of data in table

a. Primary

b. Clustered

c. Dense

d. Secondary

403. Views are generally used to focus, simplify and customize the perceptions
each user has of the _____

a. Database

- b. Program
- c. Operating system
- d. View

404. _____ provides rapid, non-sequential, direct access to records

a. Hashing

- b. Collisions handling
- c. Non hashing
- d. Sequential

405. The log file is also called _____

a. Non Transaction file

b. Transaction file

c. Temporary file

d. Hash file

406. There are _____ ways to create a new view in your database

a. Three

b. Two

c. Five

d. Six

407. The index which has some of the key value is classified as _____

a. Linear index

b. Dense index

c. Non dense index

d. Cluster index

a. Which of the following is not related to index sequential file structure? Records are stored in sequence and index is maintained

b. Dense and non dense type of indexes are maintained

c. Track overflow and file overflow areas are ensured

d. We choose a number of buckets that corresponds to the number of search key values we will have stored in the database

408. Which file organization is allowed by direct access storage device?

- i. Sequential only
- ii. Direct only
- iii. Indexed and direct only
- iv. Sequential indexed and direct

409. _____ generally are complex views , views of views, and view of multiple table

- i. Dynamic views
- ii. Simple views
- iii. Materialized view
- iv. Generalized view

410. Inverted files or inversion , linked list B+ trees, there are the three implementation approaches of ____

- i. Sequential Access
- ii. Hashing
- iii. Non sequential

iv. Indexes

411. Following are the characteristics if _____

- a. Non indexes to search or maintain
- b. Very fast direct access
- c. Inefficient sequential access
- d. Use when direct access is needed, but sequential access is not
 - i. Index access
 - ii. Sequential index
 - iii. Hashed access
 - iv. Non hashed access

412. Can be defined when even there is no data in the table , existing values are checked in execution of this command , it supports section of forms , these are the major properties of _____

- i. Sequential approach
- ii. Direct approach

iii. view

iv. indexes

413. The two basic types of record access methods are _____

i. sequential and random

ii. sequential and indexed

iii. direct and immediate

iv. sequential and immediate

► Important topics

- ❖ De-normalization (concept)
- ❖ Partitioning and its types
- ❖ Replication
- ❖ Basic commands of SQL (select ,insert , delete, create)
- ❖ (DDL, DML and DCL)
- ❖ Joins and it types
- ❖ RAID levels pg 259
- ❖ Hashing
- ❖ Handling the collision
- ❖ Primary and secondary indexing
- ❖ Clustered Versus Un-clustered Indexes
- ❖ Dense and Sparse Indices
- ❖ Transactions and Schedules
- ❖ Deadlocks , prevention, detection and handling
- ❖ Problems of Timestamping

Database:

It is an application which is a storage of collection of data. For creating, accessing, searching and replicating data, each database has distinct APIs. Files on system files and large hash tables in memory or other types of data stores can also be used. But in these types of systems data fetching and writing is not that easy.

Relational Database Managements Systems (RDBMS):

Relational Database Managements Systems (RDBMS) are used now-a-days for storing and managing huge amount of data. Since all the data is stored in different tables and foreign keys are used to establish relations.

Relational Database Management System (RDBMS) has following features:

261. Implementations of database using tables, columns and indexes.
262. Referential Integrity between rows and columns is guaranteed.
263. Automatic updates of indexes.
264. Interpretation of a SQL query with a combination of information from different tables.

RDBMS DEFINITIONS:

► Database:

It is a collection of related data in tables.

265. **Tables:**

It is a matrix of data which looks like spreadsheets.

► Column:

Column is a collection of the same type and kind of data in a database. Example, Postcode column.

266. **Row:**

Row (tuple, record or entry) is a group of related data. Example, data of one subscription.

► Redundancy:

For making the system faster redundantly, storing it twice.

267. **Primary keys:**

A unique key, whose value cannot occur twice in a table. It can be used to find only one row.

268. **Compound key:**

Compound key also known as composite key consists of many columns as one column is not unique and distinct.

► **Foreign key:**

The linking key between two tables is called foreign key.

269. **Referential Integrity:**

It makes sure that the foreign key value is always pointing to an existing row.

► **Index:**

As we have an index at the back of the book, same is the case in index of a database.

SQL Database:

For many small and large businesses SQL is an easy to use RDBMS. A Swedish company MySQL AB, developed, marketed and supported SQL. It is popular due to its features some of them are listed below:

270. MySQL, is free to use as it is released under an open source licensed. So anyone can use it without paying for it.

271. It can also be used with large data sets, as it works well and fast with these also.

272. A well known standard form of SQL data language is used by MySQL.

273. PHP is a very appreciated and popular web development language, MySQL is very friendly with PHP.

274. It works well with other operating systems having different languages as PHP, Java, PERL, C, C++, etc.

275. A large subset functionality of expensive and powerful data packages are handled by MySQL, which is a very powerful program.

276. The customizable feature of MySQL allows you to modify the software according to your own requirements as GPL license allowed programmers to do so.

PAST PAPERS QUESTIONS

- + What is view write its general syntax and different types
- + Write down any four reasons that result in database transaction
- + What is the main difference between drop and truncate command
- + Preliminary study
- + Create a view named product list on product table which show columns product(product id, product name, product quantity)
- + Select * from persons where first name like %a; what does this statement return
- + Identify the existing normal form of relations and convert into next higher normal form
- + Write SQL command for 1. add a column named cs of text type 2. Drop cs description column 3. Delete the table].
- + Difference between truncate command and Drop command.
- + Difference between Alternate key and candidate key with example.
- + Recovery procedure(write in correct order).
- + Given 1 line, containing attributes. Like(Reg no , Roll no, stu name, class)
- + Reg no and Roll no are both underlined. Describe the given line contain candidate keys or not. Also describe it is BCNF or not.
- + 2 Questions are describe with SQL commands.
- + Write characteristics of checkpoint.
- + Table is given, Calculate student Mark's. Total Mark's are higher than average Mark's. Compute this table in SQL form and derive Mark's of the student.
- + How many functions of an SQL. Mention with there names.
- + 2,3questions are describe with SQL command.(Means Mostly Questions are from query part)
- + De-normalization (concept)
- + Partitioning and its types
- + Replication
- + Basic commands of SQL (select ,insert , delete, create)
- + (DDL, DML and DCL)
- + Joins and it types
- + RAID levels pg 259
- + Hashing
- + Handling the collision
- + Primary and secondary indexing
- + Clustered Versus Un-clustered Indexes
- + Dense and Sparse Indices
- + Transactions and Schedules
- + Deadlocks , prevention, detection and handling
- + Problems of Timestamping