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Dr.E.M.Abdullah Campus, Ramanathapuram – 623 502
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Domain Name: Database Management Systems

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1. In the relational modes, cardinality is termed as:

(A) Number of tuples.   (B) Number of attributes.

(C) Number of tables.   (D) Number of constraints.

Ans: A

2. Relational calculus is a

(A) Procedural language.   (B) Non- Procedural language.

(C) Data definition language.   (D) High level language.

Ans: B

3. The view of total database content is

(A) Conceptual view.   (B) Internal view.

(C) External view.   (D) Physical View.

Ans: A

4. Cartesian product in relational algebra is

(A) a Unary operator.   (B) a Binary operator.

(C) a Ternary operator.   (D) not defined.

Ans: B Cartesian product in relational algebra is a binary operator.

(It requires two operands. e.g., P X Q)

5. DML is provided for

(A) Description of logical structure of database.

(B) Addition of new structures in the database system.

(C) Manipulation & processing of database.

(D) Definition of physical structure of database system.

Ans: C DML is provided for manipulation & processing of database.

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(Data stored in the database is processed or manipulated using data manipulation language commands as its name)

6. 'AS' clause is used in SQL for

(A) Selection operation.   (B) Rename operation.

(C) Join operation.   (D) Projection operation.

Ans: B 'AS' clause is used in SQL for rename operation.

(e.g., SELECT ENO AS EMPLOYEE_NO FROM EMP)

7. ODBC stands for

(A) Object Database Connectivity.

(B) Oral Database Connectivity.

(C) Oracle Database Connectivity.

(D) Open Database Connectivity.

Ans: D

8. Architecture of the database can be viewed as

(A) two levels.   (B) four levels.

(C) three levels.   (D) one level.

Ans: C

9. In a relational model, relations are termed as

(A) Tuples.   (B) Attributes

(C) Tables.   (D) Rows.

Ans:C

10. The database schema is written in

(A) HLL   (B) DML

(C) DDL   (D) DCL

Ans: C

11. In the architecture of a database system external level is the

(A) physical level.   (B) logical level.

(C) conceptual level   (D) view level.

Ans: D

12 An entity set that does not have sufficient attributes to form a primary key is a

(A) strong entity set.   (B) weak entity set.

(C) simple entity set.   (D) primary entity set.

Ans: B

13 In a Hierarchical model records are organized as

(A) Graph.   (B) List.

(C) Links.   (D) Tree.

Ans: D

14 In an E-R diagram attributes are represented by

(A) rectangle.   (B) square.

(C) ellipse.   (D) triangle.

Ans: C

15 In case of entity integrity, the primary key may be

(A) not Null   (B) Null

(C) both Null & not Null.   (D) any value.

Ans: A

16 In tuple relational calculus P1 ®P2 is equivalent to

(A) ¬P1 Ú P2   (B) P1 Ú P2

(C) P1 Ù P2   (D) P1 Ù¬P2

Ans: A In tuple relational calculus P1 P2 is equivalent to ¬P1 Ú P2.

(The logical implication expression A B, meaning if A then B,is equivalent to ¬A Ú B)

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17 The language used in application programs to request data from the DBMS is referred to as the

(A) DML   (B) DDL

(C) VDL   (D) SDL

Ans: A

18 A logical schema

(A) is the entire database.

(B) is a standard way of organizing information into accessible parts.

(C) describes how data is actually stored on disk.

(D) both (A) and (C)

Ans: A

19 Related fields in a database are grouped to form a

(A) data file.   (B) data record.

(C) menu.   (D) bank.

Ans: B Related data fields in a database are grouped to form a data record.

(A record is a collection of related fields)

20 The database environment has all of the following components except:

(A) users.   (B) separate files.

(C) database.   (D) database administrator.

Ans: A

21 The language which has recently become the defacto standard for interfacing application programs with relational database system is

(A) Oracle.   (B) SQL.

(C) DBase.   (D) 4GL.

Ans: B

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22 The way a particular application views the data from the database that the application

uses is a

(A) module.   (B) relational model.

(C) schema.   (D) sub schema.

Ans: D

23 In an E-R diagram an entity set is represent by a

(A) rectangle.   (B) ellipse.

(C) diamond box.   (D) circle.

Ans: A

24 A report generator is used to

(A) update files.   (B) print files on paper.

(C) data entry.   (D) delete files.

Ans: B

25 The property / properties of a database is / are :

(A) It is an integrated collection of logically related records.

(B) It consolidates separate files into a common pool of data records.

(C) Data stored in a database is independent of the application programs using it.

(D) All of the above.

Ans: D

26 The DBMS language component which can be embedded in a program is

(A) The data definition language (DDL).

(B) The data manipulation language (DML).

(C) The database administrator (DBA).

(D) A query language.

Ans: B

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27 A relational database developer refers to a record as

(A) a criteria.

(B) a relation.

(C) a tuple.

(D) an attribute.

Ans: C

28 The relational model feature is that there

(A) is no need for primary key data.

(B) is much more data independence than some other database models.

(C) are explicit relationships among records.

(D) are tables with many dimensions.

Ans: B

Q.29 Conceptual design

(A) is a documentation technique.

(B) needs data volume and processing frequencies to determine the size of the database.

(C) involves modelling independent of the DBMS.

(D) is designing the relational model.

Ans:C

30 The method in which records are physically stored in a specified order according to a key field in each record is

(A) hash.

(B) direct.

(C) sequential.

(D) all of the above.

Ans: A A method in which records are physically stored in a specified order according to a key field in each record is hash.

(In hash method, a hash function is performed on the key value to determine the unique physical address of the record to store or retrieve)

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31 A subschema expresses

(A) the logical view.   (B) the physical view.

(C) the external view.   (D) all of the above.

Ans: C A subschema expresses the external view.

(External schemas are called also called as subschemas)

32 Count function in SQL returns the number of

(A) values.   (B) distinct values.

(C) groups.   (D) columns.

Ans: A Count function in SQL returns the number of values.

(Count function counts all the not null values in the specific column. If we want to count only distinct values than the DISTINCT keyword is also to be used)

33 Which one of the following statements is false?

(A) The data dictionary is normally maintained by the database administrator.

(B) Data elements in the database can be modified by changing the data dictionary.

(C) The data dictionary contains the name and description of each data element.

(D) The data dictionary is a tool used exclusively by the database administrator.

Ans: B

34 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

35 A DBMS query language is designed to

(A) support end users who use English-like commands.

(B) support in the development of complex applications software.

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(C) specify the structure of a database.

(D) all of the above.

Ans: D

36 Transaction processing is associated with everything below except

(A) producing detail, summary, or exception reports.

(B) recording a business activity.

(C) confirming an action or triggering a response.

(D) maintaining data.

Ans: C

37 It is possible to define a schema completely using

(A) VDL and DDL.   (B) DDL and DML.

(C) SDL and DDL.   (D) VDL and DML.

Ans: B

38 The method of access which uses key transformation is known as

(A) direct.   (B) hash.

(C) random.   (D) sequential.

Ans: B

39 Data independence means

(A) data is defined separately and not included in programs.

(B) programs are not dependent on the physical attributes of data.

(C) programs are not dependent on the logical attributes of data.

(D) both (B) and (C).

Ans: D both (B) and (C)

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40 The statement in SQL which allows to change the definition of a table is

(A) Alter.   (B) Update.

(C) Create.   (D) select.

Ans: A

41 E-R model uses this symbol to represent weak entity set ?

(A) Dotted rectangle.

(B) Diamond

(C) Doubly outlined rectangle

(D) None of these

Ans: C

42 SET concept is used in :

(A) Network Model

(B) Hierarchical Model

(C) Relational Model

(D) None of these

Ans: A

43 Relational Algebra is

(A) Data Definition Language .

(B) Meta Language

(C) Procedural query Language

(D) None of the above

Ans: C

44 Key to represent relationship between tables is called

(A) Primary key   (B) Secondary Key

(C) Foreign Key   (D) None of these

Ans: C

45 _____ produces the relation that has attributes of R1 and R2

(A) Cartesian product

(B) Difference

(C) Intersection

(D) Product

Ans: A

46 The file organization that provides very fast access to any arbitrary record of a file is

(A) Ordered file

(B) Unordered file

(C) Hashed file

(D) B-tree

Ans: C

47 DBMS helps achieve

(A) Data independence

(B) Centralized control of data

(C) Neither (A) nor (B)

(D) both (A) and (B)

Ans: D

48 Which of the following are the properties of entities?

(A) Groups

(B) Table

(C) Attributes

(D) Switchboards

Ans: C

49 In a relation

(A) Ordering of rows is immaterial

(B) No two rows are identical

(C) (A) and (B) both are true

(D) None of these.

Ans: C

50 Which of the following is correct:

(A) a SQL query automatically eliminates duplicates.

(B) SQL permits attribute names to be repeated in the same relation.

(C) a SQL query will not work if there are no indexes on the relations

(D) None of these

Ans: D

51 It is better to use files than a DBMS when there are

(A) Stringent real-time requirements.

(B) Multiple users wish to access the data.

(C) Complex relationships among data.

(D) All of the above.

Ans: B

52 The conceptual model is

(A) dependent on hardware.

(B) dependent on software.

(C) dependent on both hardware and software .

(D) independent of both hardware and software.

Ans: D

53 What is a relationship called when it is maintained between two entities?

(A) Unary   (B) Binary

(C) Ternary   (D) Quaternary

Ans: B

54 Which of the following operation is used if we are interested in only certain columns of a table?

(A) PROJECTION   (B) SELECTION

(C) UNION   (D) JOIN

Ans: A

55 Which of the following is a valid SQL type?

(A) CHARACTER

(B) NUMERIC

(C) FLOAT

(D) All of the above

Ans: D

56 The RDBMS terminology for a row is

(A) tuple.

(B) relation.

(C) attribute.

(D) degree.

Ans: A

57 Which of the following operations need the participating relations to be union compatible?

(A) UNION

(B) INTERSECTION

(C) DIFFERENCE

(D) All of the above

Ans: D

58 The full form of DDL is

(A) Dynamic Data Language

(B) Detailed Data Language

(C) Data Definition Language

(D) Data Derivation Language

Ans: C

59 Which of the following is an advantage of view?

(A) Data security

(B) Derived columns

(C) Hiding of complex queries

(D) All of the above

Ans: D

60 Which of the following is a legal expression in SQL?

(A) SELECT NULL FROM EMPLOYEE;

(B) SELECT NAME FROM EMPLOYEE;

(C) SELECT NAME FROM EMPLOYEE WHERE SALARY = NULL;

(D) None of the above

Ans: B

61 The users who use easy-to-use menu are called

(A) Sophisticated end users.

(B) Naïve users.

(C) Stand-alone users.

(D) Casual end users.

Ans: B

62 Which database level is closest to the users?

(A) External

(B) Internal

(C) Physical

(D) Conceptual

Ans: A

63 Which are the two ways in which entities can participate in a relationship?

(A) Passive and active

(B) Total and partial

(C) Simple and Complex

(D) All of the above

Ans: B

64 The result of the UNION operation between R1 and R2 is a relation that includes

(A) all the tuples of R1

(B) all the tuples of R2

(C) all the tuples of R1 and R2

(D) all the tuples of R1 and R2 which have common columns

Ans: D

65 Which of the following is a comparison operator in SQL?

(A) =

(B) LIKE

(C) BETWEEN

(D) All of the above

Ans: D

66 A set of possible data values is called

(A) attribute.

(B) degree.

(C) tuple.

(D) domain.

Ans: D

67 Which of the operations constitute a basic set of operations for manipulating relational data?

(A) Predicate calculus

(B) Relational calculus

(C) Relational algebra

(D) None of the above

Ans:C

68 Which of the following is another name for weak entity?

(A) Child

(B) Owner

(C) Dominant

(D) All of the above

Ans: A

69 Which of the following database object does not physically exist?

(A) base table

(B) index

(C) view

(D) none of the above

Ans: C

70 NULL is

(A) the same as 0 for integer

(B) the same as blank for character

(C) the same as 0 for integer and blank for character

(D) not a value

Ans: D

71 Which of the following is record based logical model?

(A) Network Model

(B) Object oriented model

(C) E-R Model

(D) None of these

Ans: A

72 A data dictionary is a special file that contains:

(A) The name of all fields in all files.

(B) The width of all fields in all files.

(C) The data type of all fields in all files.

(D) All of the above.

Ans: D

73 A file manipulation command that extracts some of the records from a file is called

(A) SELECT

(B) PROJECT

(C) JOIN

(D) PRODUCT

Ans: A

74 The physical location of a record is determined by a mathematical formula that trAnsforms a file key into a record location is :

(A) B-Tree File

(B) Hashed File

(C) Indexed File

(D) Sequential file.

Ans: B

75 Using Relational Algebra the query that finds customers, who have a balance of over 1000 is

(A) PCustomer_name(s balance >1000(Deposit))

(B) s Customer_name(Pbalance >1000(Deposit))

(C) PCustomer_name(s balance >1000(Borrow))

(D) s Customer_name(Pbalance >1000(Borrow))

Ans: A

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76 A primary key is combined with a foreign key creates

(A) Parent-Child relation ship between the tables that connect them.

(B) Many to many relationship between the tables that connect them.

(C) Network model between the tables that connect them.

(D) None of the above.

Ans: A

77 In E-R Diagram derived attribute are represented by

(A) Ellipse   (B) Dashed ellipse

(C) Rectangle   (D) Triangle

Ans B

78 Cross Product is a:

(A) Unary Operator   (B) Ternary Operator

(C) Binary Operator   (D) Not an operator

Ans: C

79 An instance of relational schema R (A, B, C) has distinct values of A including NULL values. Which one of the following is true?

(A) A is a candidate key   (B) A is not a candidate key

(C) A is a primary Key   (D) Both (A) and (C)

Ans: B

80 Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:

(A) mn   (B) m+n

(C) (m+n)/2   (D) 2(m+n)

Ans: A

81 The natural join is equal to :

(A) Cartesian Product

(B) Combination of Union and Cartesian product

(C) Combination of selection and Cartesian product

(D) Combination of projection and Cartesian product

Ans: D

82 Which one of the following is not true for a view:

(A) View is derived from other tables.

(B) View is a virtual table.

(C) A view definition is permanently stored as part of the database.

(D) View never contains derived columns.

Ans: C

83 A primary key if combined with a foreign key creates

(A) Parent-Child relationship between the tables that connect them.

(B) Many to many relationship between the tables that connect them.

(C) Network model between the tables that connect them.

(D) None of the above.

Ans: A

84 In E-R Diagram relationship type is represented by

(A) Ellipse   (B) Dashed ellipse

(C) Rectangle   (D) Diamond

Ans: D

85 Hierarchical model is also called

(A) Tree structure   (B) Plex Structure

(C) Normalize Structure   (D) Table Structure

Ans: A

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86 To delete a particular column in a relation the command used is:

(A) UPDATE   (B) DROP

(C) ALTER   (D) DELETE

Ans: C

87 The _____ operator is used to compare a value to a list of literals values that have been specified.

(A) BETWEEN   (B) ANY

(C) IN   (D) ALL

Ans: A

88 A logical schema

A) is the entire database

B) is a standard way of organizing information into a accessible part

C) describe how data is actually stored on disk

D) none of these

Ans: D

89 A B-tree of order m has maximum of _____ children

(A) m   (B) m+1

(C) m-1   (D) m/2

Ans: A

90 _____ function divides one numeric expression by another and returns the remainder.

(A) POWER   (B) MOD

(C) ROUND   (D) REMAINDER

Ans: B

91 A data manipulation command the combines the records from one or more tables is called

(A) SELECT
(B) PROJECT
(C) JOIN
(D) PRODUCT

Ans: C

92 In E-R diagram generalization is represented by

(A) Ellipse
(B) Dashed ellipse
(C) Rectangle
(D) Triangle

Ans: D

93 _____ is a virtual table that draws its data from the result of an SQL SELECT statement.

(A) View
(B) Synonym
(C) Sequence
(D) Transaction

Ans: A

94 The method of access which uses key transformation is known as

(A) Direct
(B) Hash
(C) Random
(D) Sequential

Ans: B

95 A table joined with itself is called

(A) Join
(B) Self Join
(C) Outer Join
(D) Equi Join

Ans: B

96 _____ data type can store unstructured data

(A) RAW
(B) CHAR
(C) NUMERIC
(D) VARCHAR

Ans: A

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97. In an object-oriented model, one object can access data of another object by passing:

(A) Instance Variable

(B) Message

(C) Variable

(D) None of these

Ans: B

98. A view of database that appears to an application program is known as:

(A) Schema

(B) Subschema

(C) virtual table

(D) none of the above

Ans: B

99. An abstraction concept for building composite object from their component object is called:

(A) Specialization

(B) Normalization

(C) Generalization

(D) Aggregation

Ans: D

100. A set of objects that share a common structure and a common behavior is called:

(A) Object

(B) Class

(C) Entity

(D) None of these

Ans: B

101. Every weak entity set can be converted into a strong entity set by:

(A) using generalization

(B) adding appropriate attributes

(C) using aggregation

(D) none of the above

Ans: B

102. The number of entities to which another entity can be associated via a relationship set is expressed as:

(A) Entity

(B) Cardinality

(C) Schema   (D) Attributes

Ans: B

103. Relations produced from an E-R model will always be in:

(A) First normal form   (B) Second normal form

(C) Third normal form   (D) Fourth normal form

Ans: B

104. In ER model the details of the entities are hidden from the user. This process is called:

(A) Generalization

(B) Specialization

(C) Abstraction

(D) none of these above

Ans: C

105. The file organization that provides very fast access to any arbitrary record of a file is:

(A) Ordered file

(B) Unordered file

(C) Hashed file

(D) B-tree

Ans: C

106. What is not true about a view?

(A) It is a definition of a restricted portion of the database

(B) It is a security mechanism

(C) It is always updatable like any other table

(D) All are true

Ans: C

107. In a relational database a referential integrity constraint can be specified with the help of

(A) primary key

(B) foreign key

(C) secondary key

(D) none of the above

Ans: B

108. A super key is a set of one or more attributes that, taken collectively, allow us

(A) to identify uniquely an entity in the entity set

(B) to make the key most powerful for faster retrieval

(C) to increase effectiveness of database access

(D) none of the above

Ans: A

109. 4NF is designed to cope with:

(A) Transitive dependency

(B) Join dependency

(C) Multi valued dependency

(D) None of these

Ans: C

109. Every Boyee-Codd normal form is in

(A) First normal form

(B) Second normal form

(C) Third normal form

(D) All of the above

Ans: B

110. Which command is used to remove all rows from a table?

(A) Delete

(B) Remove

(C) Truncate

(D) Both [A] and [B]

Ans: C

111. Which of the following is an aggregate function in SQL?

(A) Union

(B) Like

(C) Group By

(D) Max

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Ans: D

112. Which command is used to add a column to an existing table?

(A) Create   (B) Update

(C) Alter   (D)None of these

Ans: C

113. A deadlock exists in the system if and only if the wait for graph:

(A) has a cycle in it   (B) has a path from first node to last node

(C) is a tree   (D) none of the above

Ans: A

114. 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

115. Prevention of access to the database by unauthorized users is referred to as:

(A) Integrity   (B) Productivity

(C) Security   (D) Reliability

Ans: C