



BRAINWARE UNIVERSITY
Term End Examination 2020 - 21
Programme – Master of Computer Applications

Course Name – DBMS

Course Code - MCA303

Semester / Year - Semester III

Time allotted : 75 Minutes

Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

1. *(Answer any Sixty)*

(i) The term _____ is used to refer to a row.

- | | |
|--------------|-------------|
| a) Attribute | b) Tuple |
| c) Field | d) Instance |

(ii) The term attribute refers to a _____ of a table.

- | | |
|-----------|-----------|
| a) Record | b) Column |
| c) Tuple | d) Key |

(iii) Database _____ which is the logical design of the database, and the database _____ which is a snapshot of the data in the database at a given instant in time.

- | | |
|---------------------|---------------------|
| a) Instance, Schema | b) Relation, Schema |
| c) Relation, Domain | d) Schema, Instance |

(iv) Course(course_id,sec_id,semester) Here the course_id,sec_id and semester are _____ and course is a _____

- | | |
|-------------------------|-------------------------|
| a) Relations, Attribute | b) Attributes, Relation |
| c) Tuple, Relation | d) Tuple, Attributes |

(v) Department (dept name, building, budget) and Employee (employee_id, name, dept name, salary) Here the dept_name attribute appears in both the

relations. Here using common attributes in relation schema is one way of relating _____ relations.

- a) Attributes of common
- b) Tuple of common
- c) Tuple of distinct
- d) Attributes of distinct

(vi) The tuples of the relations can be of _____ order.

- a) Any
- b) Same
- c) Sorted
- d) Constant

(vii) A _____ in a table represents a relationship among a set of values.

- a) Column
- b) Key
- c) Row
- d) Entry

(viii) Which one of the following provides the ability to query information from the database and to insert tuples into, delete tuples from, and modify tuples in the database?

- a) DML
- b) DDL
- c) Query
- d) Relational schema

(ix) The basic data type char(n) is a _____ length character string and varchar(n) is _____ length character.

- a) Fixed, equal
- b) Equal, Variable
- c) Fixed, variable
- d) Variable, equal

(x) An attribute A of datatype varchar(20) has the value "Avi". The attribute B of datatype char(20) has value "Reed". Here attribute A has _____ spaces and attribute B has _____ spaces.

- a) 3,20
- b) 20,4
- c) 20,20
- d) 3,4

(xi) To remove a relation from an SQL database, we use the _____ command.

- a) Drop table
- b) delete

c) remove

d) purge

(xii) Delete from r; Performs which operation?

a) Clear relation entries

b) Delete the relation

c) Delete fields

d) Delete rows

(xiii) Which one of the following is used to define the structure of the relation, deleting relations and relating schemas?

a) DDL

b) DML

c) Relational algebra

d) Query

(xiv) What type of statement is 'select'?

a) DDL

b) DML

c) View

d) Integrity constraint

(xv) This Query can be replaced by which one of the following? SELECT name, course_id FROM instructor, teaches WHERE instructor_ID=teaches_ID;

a) Select name, course_id from teaches, instructor where instructor_id=course_id;

b) Select name, course_id from instructor natural join teaches

c) Select name, course_id from instructor;

d) Select course_id from instructor join teaches;

(xvi) The Rectangles divided into two parts represents

a) Entity set

b) Relationship set

c) Attributes of a relationship set

d) Primary key

(xvii) We indicate roles in E-R diagrams by labeling the lines that connect _____ to _____

a) Diamond , diamond

b) Rectangle, diamond

c) Rectangle, rectangle

d) Diamond, rectangle

(xviii) For a weak entity set to be meaningful, it must be associated with another entity set, called the

- a) Identifying set
- b) Owner set
- c) Neighbour set
- d) Strong entity set

(xix) Weak entity set is represented as

- a) Underline
- b) Double line
- c) Double diamond
- d) Double rectangle

(xx) If you were collecting and storing information about your music collection, an album would be considered a(n) _____

- a) Relation
- b) Entity
- c) Instance
- d) Attribute

(xxi) What term is used to refer to a specific record in your music database; for instance; information stored about a specific album?

- a) Relation
- b) Instance
- c) Table
- d) Column

(xxii) How many join types in join condition:

- a) 2
- b) 3
- c) 4
- d) 5

(xxiii) Which join refers to join records from the right table that have no matching key in the left table are include in the result set:

- a) Left outer join
- b) Right outer join
- c) Full outer join
- d) Half outer join

(xxiv) In SQL the statement select * from R, S is equivalent to

- a) Select * from R natural join S
- b) Select * from R cross join S
- c) Select * from R union join S
- d) Select * from R inner join S

(xxv) SELECT name FROM instructor WHERE salary <= 100000 AND salary >= 90000; This query can be replaced by which of the following

- | | |
|---|--|
| a) SELECT name FROM instructor WHERE salary BETWEEN 90000 AND 100000; | b) SELECT name FROM employee WHERE salary <= 90000 AND salary>=100000; |
| c) SELECT name FROM employee WHERE salary BETWEEN 90000 AND 100000; | d) SELECT name FROM instructor WHERE salary BETWEEN 100000 AND 90000; |

(xxvi) SELECT instructor.* FROM instructor, teaches WHERE instructor.ID=teaches.ID; This query does which of the following operation?

- | | |
|--|---|
| a) All attributes of instructor and teaches are selected | b) All attributes of instructor are selected on the given condition |
| c) All attributes of teaches are selected on given condition | d) Only some attributes from instructed and teaches are selected |

(xxvii) In SQL the spaces at the end of the string are removed by _____ function.

- | | |
|----------|-----------|
| a) Upper | b) String |
| c) Trim | d) Lower |

(xxviii) _____ operator is used for appending two strings.

- | | |
|------|------|
| a) & | b) % |
| c) | d) _ |

(xxix) CREATE TABLE Employee(Emp_id NUMERIC NOT NULL, Name VARCHAR(20) , dept_name VARCHAR(20), Salary NUMERIC UNIQUE(Emp_id,Name)); INSERT INTO Employee VALUES(1002, Ross, CSE, 10000) INSERT INTO Employee VALUES(1006,Ted,Finance,); INSERT INTO Employee VALUES(1002,Rita,Sales,20000); What will be the result of the query?

- | | |
|----------------------------------|----------------------------------|
| a) All statements executed | b) Error in create statement |
| c) Error in insert into Employee | d) Error in insert into Employee |

values(1006,Ted,Finance,);

values(1008,Ross,Sales,20000);

(xxx) CREATE TABLE Manager(ID NUMERIC,Name VARCHAR(20),budget NUMERIC,Details VARCHAR(30)); Inorder to ensure that the value of budget is non-negative which of the following should be used?

- a) Check(budget>0)
- b) Check(budget<0)
- c) Alter(budget>0)
- d) Alter(budget<0)

(xxxii) Foreign key is the one in which the _____ of one relation is referenced in another relation.

- a) Foreign key
- b) Primary key
- c) References
- d) Check constraint

(xxxiii) Domain constraints, functional dependency and referential integrity are special forms of _____

- a) Foreign key
- b) Primary key
- c) Assertion
- d) Referential constraint

(xxxiiii) Which of the following can be addressed by enforcing a referential integrity constraint?

- a) All phone numbers must include the area code
- b) Certain fields are required (such as the email address, or phone number) before the record is accepted
- c) Information on the customer must be known before anything can be sold to that customer
- d) When entering an order quantity, the user must input a number and not some text (i.e., 12 rather than 'a dozen')

(xxxv) Which of the following is a tuple-generating dependency?

- a) Functional dependency
- b) Equality-generating dependencies
- c) Multivalued dependencies
- d) Non-functional dependency

(xxxvi) Which forms has a relation that possesses data about an individual

entity?

- a) 2NF
- b) 3NF
- c) 4NF
- d) 5NF

(xxxvi) The normal form which satisfies multivalued dependencies and which is in BCNF is

- a) 4 NF
- b) 3 NF
- c) 2 NF
- d) All of the mentioned

(xxxvii) If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from one of the following sources.

- a) A many-to-many relationship set
- b) A multivalued attribute of an entity set
- c) A one-to-many relationship set
- d) Both A many-to-many relationship set and A multivalued attribute of an entity set

(xxxviii) 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

(xxxix) Relational calculus is a

- a) Procedural language.
- b) Non- Procedural language
- c) Data definition language.
- d) High level language

(xl) 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.

(xli) A primary key if combined with a foreign key creates

- a) Parent-Child relationship between the
- b) Many to many relationship between the

tables that connect them

tables that connect them.

- c) Network model between the tables that connect them. d) None of these

(xlii) In E-R Diagram relationship type is represented by

- a) Ellipse b) Dashed ellipse
c) Rectangle d) Diamond

(xliii) Hierarchical model is also called

- a) Tree Structure b) Plex Structure
c) Normalize Structure d) Table Structure

(xliv) To delete a particular column in a relation the command used is:

- a) UPDATE b) DROP
c) ALTER d) DELETE

(xlv) A data manipulation command the combines the records from one or more tables is called

- a) SELECT b) PROJECT
c) JOIN d) PRODUCT

(xlvi) Which of the following is another name for weak entity?

- a) Child b) Owner
c) Dominant d) All of each

(xlvii) Which of the following database object does not physically exist?

- a) base table b) index
c) view d) none of these

(xlviii) Which of the following is record based logical model?

- a) Network Model b) Object oriented model

- c) E-R Model
- d) none of these

(xlix) 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 each

(l) Using Relational Algebra the query that finds customers, who have a balance of over

- a) $\rho_{Customer_name}(s \text{ balance} > 1000(\text{Deposit}))$
- b) $s \text{ Customer_name}(\rho_{balance} > 1000(\text{Deposit}))$
- c) $\rho_{Customer_name}(s \text{ balance} > 1000(\text{Borrow}))$
- d) $s \text{ Customer_name}(\rho_{balance} > 1000(\text{Borrow}))$

(li) Which of the following is a comparison operator in SQL?

- a) =
- b) LIKE
- c) BETWEEN
- d) All of the mentioned

(lii) SET concept is used in :

- a) Network Model
- b) Hierarchical Model
- c) Relational Model
- d) None of these

(liii) The statement in SQL which allows to change the definition of a table is

- a) Alter.
- b) Update.
- c) Create.
- d) select.

(liv) 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 programs are not dependent on the physical attributes of data. & programs are not dependent on the logical attributes of data.

(lv) 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 these

(lvi) 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

(lvii) 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

(lviii) What is a relationship called when it is maintained between two entities?

- a) Unary
- b) Binary
- c) Ternary
- d) Quaternary

(lix) 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

(lx) 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 these