Subject: Database Systems – DBI202 Number of questions: 60

Multiple choice question:

|  |  |
| --- | --- |
| QN=1 | Which of following feature is NOT responsibility of Database  Management System? |
| a. | Allow users to create new databases and specify their schemas |
| b. | Give users the ability to query the data |
| c. | Support the storage of very large amounts of data |
| **d.** | **Manage user accounts of computer on which DBMS is running** |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=2 | Which of following statement is correct? |
| **a.** | **Every relation must have only one primary key** |
| b. | Primary key has only one attribute |
| c. | Two tuples can have the same values on primary key's components |
| d. | Super key is a special primary key |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=3 | The database language that is used to query and modify the database  is called : |
| a. | Data Definition Language |
| b. | Data Manipulation Language |
| c. | Data Control Language |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=4 | A rule that states that each foreign key value must match a primary  key value in other relation is called the |
| a. | Referential integrity constraint |
| b. | Key match rule |
| c. | Foreign/primary match rule |
| d. | Entity key group rule |
| e. |  |
| f. |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| QN=5 | A constraint between two attribute sets in a relation is called |
| a. | Functional relation |
| b. | Attribute dependency |
| c. | Functional dependency |
| d. | Functional relation constraint |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=6 | Given relations [file:F01.jpg]    How many rows in R U S |
| a. | 5 |
| b. | 2 |
| c. | 3 |
| d. | 4 |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=7 | [file:F04.jpg]    How many rows are there in re result of |
| a. | 0 |
| b. | 1 |

|  |  |
| --- | --- |
| c. | 2 |
| d. | 3 |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=8 | Given relations [file:F02.jpg]    How many rows in R - S |
| a. | 0 |
| b. | 1 |
| c. | 2 |
| d. | 3 |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=9 | Which of the following may be used to describe the relationship  between two relations? |
| a. | Super key |
| b. | Alternate Key |
| c. | Compose key |
| d. | Foreign key |
| e. |  |

|  |  |
| --- | --- |
| f. |  |

|  |  |
| --- | --- |
| QN=10 | The number of entity sets that participate in a relationship is called the |
| a. | Identifying characteristic |
| b. | Degree |
| c. | Entity |
| d. | Entity set |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=11 | Suppose relation R(ABCD) with functional dependencies set  F={AB, BC, BCD}. Which of followings is a key of R? |
| a. | A |
| b. | B |
| c. | AB |
| d. | BC |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=12 | Suppose relation R(ABCD) with functional dependencies set  F={AB, BC, BCD}. Which of the highest Normal form of R? |
| a. | 1NF |
| b. | 2NF |
| c. | 3NF |
| d. | BCNF |
| e. |  |

|  |  |
| --- | --- |
| f. |  |

|  |  |
| --- | --- |
| QN=13 | Given relation R(**ABCDE)** with functional dependencies set  F={AB, BC, BCD, CE}. Compute {B}+ |
| a. | {ABCDE} |
| b. | {BCDE} |
| c. | {AB} |
| d. | {CDE} |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=14 | A is a set of attributes of a relation whose values can be  used to uniquely identify a row |
| a. | Foreign key |
| b. | Super key |
| c. | Alternate Key |
| d. | Compose key |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=15 | A relationship ***Writes*** from **Authors** to **Books** should be |
| a. | An one – one relationship |
| b. | A many – one relationship |
| c. | An ISA relationship |
| d. | A many – many relationship |
| e. |  |

|  |  |
| --- | --- |
| f. |  |

|  |  |
| --- | --- |
| QN=16 | The normal form which is required every non-key attribute is fully  dependent on the primary key is called |
| a. | 1NF |
| b. | 2NF |
| c. | 3NF |
| d. | BCNF |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=17 | Every employee can work in one or more projects and every project has a  lot of worked employees. This relationship is |
| a. | Many to many |
| b. | Many to one |
| c. | One to one |
| d. | One to many |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=18 | Suppose there are two relations R(A,B,C) and S(E,F), and a referential integrity constraint from attribute F of S to attribute A of  R, where A is a primary key of R. Which of the followings can violate this constraint? |
| a. | Insert a new tuple to the relation R |
| b. | Insert a new tuple to the relation S |
| c. | Delete an exist tuple from the relation S |

|  |  |
| --- | --- |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=19 | Select the right statement |
| a. | Referential integrity constraint is also called foreign key constraint |
| b. | A foreign key in one table points to a PRIMARY KEY in another table |
| c. | A foreign key constraint can be added or deleted using the 'Alter Table'  command |
| d. | All of the answers |
| e. |  |
| f. |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| QN=20 | Which of the following terms is NOT a property of a transaction? (ACID) |
| a. | Security |
| b. | Atomicity |
| c. | Consistency |
| d. | Isolation |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=21 | Select the correct statement |
| a. | The projection operation eliminates duplicated tuples |
| b. | The selection operation always returns a relation has number of tuples  equal zero |

|  |  |
| --- | --- |
| c. | The projection operation always returns a relation has the same schema  with the relation projected |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=22 | In ERD using Chen notation, the diamond symbol is used to  represent an |
| a. | Entity |
| b. | Attribute |
| c. | Key |
| d. | Relationship |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=23 | In the referential integrity constraints, referenced attribute(s) must be  and referencing attribute(s) are called |
| a. | Primary key, Foreign key |
| b. | Foreign key, Primary key |
| c. | Foreign key, Foreign key |
| d. | Primary key, Primary key |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=24 | The ER Diagram uses three principle element types: |
| a. | Entity sets, Constraints, and Relationships |

|  |  |
| --- | --- |
| b. | Attributes, Constraints, and Relationships |
| c. | Entity sets, Attributes and Constraints |
| d. | Entity sets, Attributes, and Relationships |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=25 | Database users can connect to database management system as |
| a. | Database administrator |
| b. | Database designer |
| c. | Database end-user |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=26 | Data Definition language (DDL) is used to |
| a. | Query database and modify the database |
| b. | Connect to database and query database |
| c. | Create database schemas |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=27 | Choose the WRONG statement. |
| a. | Null means 'nothing' or without value or consequence |
| b. | SQL not allows attributes to have a NULL value. |
| c. | Certain operations on Null can return values if the value of Null is not  relevant to the outcome of the operation |

|  |  |
| --- | --- |
| d. | The NULL constraint determines whether or not data has to be entered  into a column. |
| e. |  |
| f. |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| QN=28 | Select right order of using clauses in SQL is |
| a. | SELECT, WHERE, FROM, GROUP, HAVING, ORDER |
| b. | SELECT, FROM, WHERE, GROUP, HAVING, ORDER |
| c. | SELECT, WHERE, FROM, GROUP, ORDER, HAVING |
| d. | SELECT, FROM, GROUP, WHERE, HAVING, ORDER |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=29 | Which of following statements is correct? |
| a. | INSERT INTO <table\_name> VALUES (<list\_of\_values>) |
| b. | INSERT INTO <table\_name>(<list\_of\_attributes>) <sub\_query> |
| c. | INSERT INTO <table\_name>(<list\_of\_attributes>) VALUES  (<list\_of\_values> |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=30 | Choose the WRONG statement |
| a. | A database is a collection of information that exists over a long period of  time |
| b. | A DBMS is a software to facilitate the creation and maintenance of a  computerized database |

|  |  |
| --- | --- |
| c. | A DBMS is expected to control access to data from many users at once |
| d. | None of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=31 | Choose the WRONG statement |
| a. | An attribute is a row of the table |
| b. | A relation schema is a list of attributes of the relation |
| c. | Relations are sets of tuples, not lists of tuples. |
| d. | Each component of each tuple must be of some elementary type such  as integer or string |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=32 | Choose the CORRECT statement |
| a. | A relation has at least one primary key |
| b. | Attributes of a key are not allowed to have NULL value |
| c. | Two tuples in all relation instance do not have the same values in all  attributes of the key |
| d. | All of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=33 | A relationship is when both participants in the relationship are the  same entity set is called |
| a. | Ternary |
| b. | Binary |

|  |  |
| --- | --- |
| c. | Unary |
| d. | Primary |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=34 | Choose the WRONG statement |
| a. | Relationships are connections among at least two distinct entity sets |
| b. | A collection of similar entities forms an entity set |
| c. | We can define relationships involving more than two entity sets |
| d. | An E/R diagram is a graph representing entity sets, attributes, and  relationships |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=35 | Which of the following is NOT a standard aggregation operator? |
| a. | SUM |
| b. | COUNT |
| c. | AVG |
| d. | GROUP |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=36 | Suppose relation R including 8 tuples, relation S including 5 tuples. How  many tuples in RxS (where x is Cross product) |

|  |  |
| --- | --- |
| a. | 13 |
| b. | 40 |
| c. | 8 |
| d. | 5 |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=37 | Suppose the relation Employee(SSN, Fullname, Salary) including  100 tuples. Evaluate the following query: Select Top 3 \* from Employee Order by Salary DESC |
| a. | There are some errors on this query |
| b. | This query executes successfully but no rows are returned |
| c. | This query executes successfully, and return all those employees whose  salary are maximum |
| d. | This query executes successfully, and return 3 employees whose salary are  the highest |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=38 | Suppose there is relation PRODUCT(ProductID, ProductName,  UnitPrice, Description). Which of the following commands will delete all of products |
| a. | Delete From PRODUCT |
| b. | Delete \* From PRODUCT |
| c. | Truncate table PRODUCT |
| d. | A and C are correct |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=39 | Suppose two relations R(A:int, B:varchar(10) and S(C:int,  D:varchar(10)). Which of the following is valid in SQL ? |
| a. | ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A IN  (1,2,3,4,5)) |
| b. | ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A IN  (SELECT D FROM S)) |
| c. | ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A IN  (SELECT \* FROM S)) |
| d. | ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A, B IN (SELECT C FROM S)) |
| e. |  |
| f. |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| QN=40 | Four characteristics of transactions are |
| a. | Atomicity, Isolation, Consistency, Durability |
| b. | Atomicity, Isolation, Concurrency, Durability |
| c. | Read uncommitted, Read committed, Repeatable read, Serializable |
| d. | Atomicity, Isolation, rollback, commit |
| e. |  |
| f. |  |
| QN=41 | Creating database schema, declaring primary keys as well as referential  constraints and so on , are responsibilities of the |
| a. | database administrator |
| b. | database designer |
| c. | database programmer |
| d. | database user |
| e. |  |

|  |  |
| --- | --- |
| f. |  |

|  |  |
| --- | --- |
| QN=42 | The join, which connects two tuples with the same values on their  same attributes, is called as |
| a. | theta join |
| b. | equal join |
| c. | natural join |
| d. | outer join |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=43 | Which of the following may be used to describe the relationship between  two relations |
| a. | Super key |
| b. | Alternate Key |
| c. | Compose key |
| d. | Foreign key |
| e. |  |
| f. |  |
|  |  |

|  |  |
| --- | --- |
| QN=44 | Choose the correct statement. |
| a. | You can remove a trigger by dropping it or by dropping the trigger table. |
| b. | The syntax to remove a trigger is: DROP TRIGGER < trigger\_name > |
| c. | Use ALTER TRIGGER to change the definition of a trigger |
| d. | All of the others. |

|  |  |
| --- | --- |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=45 | A thing or object, which must be stored in database, best describes |
| a. | data |
| b. | entity |
| c. | attribute |
| d. | relationship |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=46 | A is a collections of tables, views, triggers, and so on |
| a. | Schema |
| b. | Cluster |
| c. | Catalog |
| d. | None of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=47 | What is a stored procedure in database? |
| a. | A system relation |
| b. | A temporary relation |
| c. | A temporary object |
| d. | None of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=48 | Database management systems support following languages,  EXCEPT |
| a. | data definition language |
| b. | data manipulation language |
| c. | data controlling language |
| d. | data securing language |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=49 | Authorizing access to database, coordinating, monitoring its use, acquiring software, and hardware resources, are  responsibilities of |
| a. | database administrator |
| b. | database designer |
| c. | database programmer |
| d. | database user |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=50 | All of followings are correct, EXCEPT |
| a. | Super key is a key |
| b. | Key is a super key |
| c. | If X is a key, then any set of attributes consists of X is super key |
| d. | Every relation has at least one key |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=51 | The description of data model consists of all followings, EXCEPT |
| a. | structure of data |
| b. | operations on data |
| c. | constraints on data |
| d. | privileges on data |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=52 | A set of (current) tuples for a given relation best describes |
| a. | relation's schema |
| b. | relation's instance |
| c. | relation's content |
| d. | relation's table |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=53 | Which SQL keyword is used to retrieve only unique values? |
| a. | DIFFERENT |
| b. | DISTINCT |
| c. | UNIQUE |
| d. | UNION |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=54 | A trigger is... |
| a. | a special type of view |
| b. | a special type of table |
| c. | a special type of store procedure, executed when certain event occurs |
| d. | Non of the others |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=55 | Functional dependency is |
| a. | a constraint on two different relations |
| b. | a constraint on a set of attributes of a relation |
| c. | a constraint on two sets of attributes of a relation |
| d. | a constraint on two sets of attributes of two different relations |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=56 | Subquery cannot be used in |
| a. | FROM clause |
| b. | WHERE clause |
| c. | GROUP BY clause |
| d. | HAVING clause |
| e. |  |
| f. |  |
| QN=57 | Given relation R(A,B), which of followings is valid? |
| a. | SELECT A, B, COUNT(\*) FROM R GROUP BY A |
| b. | SELECT A, B, COUNT(\*) FROM R GROUP BY A, B |
| c. | SELECT A, COUNT(\*) FROM R GROUP BY B |
| d. | SELECT A, B, COUNT(\*) FROM R GROUP BY B |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=58 | Given relation R(A, B) with attribute A (nullable) and B (not null),  following queries are used to count the tuples of R |
| a. | SELECT COUNT(\*) FROM R |
| b. | SELECT COUNT(A) FROM R |
| c. | SELECT COUNT(B) FROM R |
| d. | A and C |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=59 | SQL triggers may be awakened by some events, EXCEPT |
| a. | INSERT |
| b. | UPDATE |
| c. | DELETE |
| d. | ALTER |
| e. |  |
| f. |  |

|  |  |
| --- | --- |
| QN=60 | A trigger belongs to |
| a. | a single table in the database |
| b. | all tables in the database |
| c. | more than one table in the database |
| d. | none of the others |
| e. |  |
| f. |  |