

Name: Nikos Angelis

Panther-ID: 6082611

Answer all twenty questions. Circle the most suitable option on this booklet.

16  
---  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

8

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?  
 a. define a new database  
 b. change column names  
 c. create an additional table  
 d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:  
 a. partial dependency  
 b. repeating group attribute  
 c. multi-valued dependencies  
 d. transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?  
 a. merge  
 b. njoin  
 c. select  
 d. project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:  
 a. user field.  
 b. user attribute.  
 c. user view.  
 d. user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:  
 a. no partial or transitive dependency  
 b. both partial and transitive dependencies  
 c. only partial dependency  
 d. only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):  
 a. view  
 b. trigger  
 c. index  
 d. stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.  
 a. data constraints  
 b. integrity constraints  
 c. table constraints  
 d. relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?  
 a. project  
 b. select  
 c. product  
 d. union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?  
 a. Integrity constraint  
 b. Database design  
 c. Data dependence  
 d. Data independence
20. What does it mean when an entity has a minimum cardinality of one?  
 a. The entity should not be in the relationship as an attribute.  
 b. The entity is not required in the relationship.  
 c. The entity has a mandatory role in the relationship.  
 d. The entity must be listed with all zeroes in the data fields.

Name: THOMAS APPELBAUM

Panther-ID: 6141276

Answer all twenty questions. Circle the most suitable option on this booklet.

13  
-----  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. one line of output is produced for each group
  - c. the totals appear with the rows
  - d. the rows appear in order

Name: Elvin Blen

Panther-ID: 3176659

Answer all twenty questions. Circle the most suitable option on this booklet.

13  
—  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
  
2. A(n)  is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
  
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
  
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
  
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
  
6. When rows are grouped,
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
  
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
  
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
  
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
  
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

4

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
  - a. define a new database
  - b. create an additional table
  - c. change column names
  - d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
  - a. partial dependency
  - b. repeating group attribute
  - c. multi-valued dependencies
  - d. transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
  - a. merge
  - b. njoin
  - c. select
  - d. project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user field.
  - b. user attribute.
  - c. user view.
  - d. user table.
15. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. no partial or transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
  - a. view
  - b. trigger
  - c. index
  - d. stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. data constraints
  - b. integrity constraints
  - c. table constraints
  - d. relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
  - a. project
  - b. select
  - c. product
  - d. union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
20. What does it mean when an entity has a minimum cardinality of one?
  - a. The entity should not be in the relationship as an attribute.
  - b. The entity is not required in the relationship.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.

Name: Carly Bliss

Panther-ID: 5131184

Answer all twenty questions. Circle the most suitable option on this booklet.

14  
—  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) trigger is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce entity integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as top-down design methodology.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is SELECT-FROM-WHERE.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on deletions.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- define a new database
  - change column names
  - create an additional table
  - merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- partial dependency
  - repeating group attribute
  - multi-valued dependencies
  - transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- merge
  - njoin
  - select
  - project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- user field.
  - user attribute.
  - user view.
  - user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- no partial or transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- view
  - trigger
  - index
  - stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- data constraints
  - integrity constraints
  - table constraints
  - relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- project
  - select
  - product
  - union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- Integrity constraint
  - Database design
  - Data dependence
  - Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- The entity should not be in the relationship as an attribute.
  - The entity is not required in the relationship.
  - The entity has a mandatory role in the relationship.
  - The entity must be listed with all zeroes in the data fields.

Name: Kirk R Brown

Panther-ID: 5313246

Answer all twenty questions. Circle the most suitable option on this booklet.

17  
-----  
20

- ★ 1. The design strategy in which user requirements are synthesized into a design, is known as A.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
  
- √ 2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
  
- √ 3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
  
- ★ 4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
  
- 5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
  
- ★ 6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
  
- ★ 7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute ①
  
- ★ 8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
  
- 9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
  
- ★ 10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

8

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) C is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce referential integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is SELECT-WHERE-FROM.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on updates.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order

Name: Walter Alexander Elwell

Panther-ID: 5063168

13  
20

Answer all twenty questions. Circle the most suitable option on this booklet.

1. The design strategy in which user requirements are synthesized into a design, is known as B.
  - a. ~~bottom-up design methodology~~
  - b. ~~top-down design methodology~~
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as C.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. ~~only partial dependency~~
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. ~~one per view~~
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. ~~partial dependency~~
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. ~~user table.~~
  - b. ~~user field.~~
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. ~~Fourth normal form~~
  - b. ~~Second normal form~~
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order

Name: Pedro Franceschi

Panther-ID: 6094358

Answer all twenty questions. Circle the most suitable option on this booklet.

10  
-----  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

4

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order

Name: Ahmed Gayle

Panther-ID: 5918960

Answer all twenty questions. Circle the most suitable option on this booklet.

10  
-----  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,,:
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- define a new database
  - change column names
  - create an additional table
  - merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- partial dependency
  - repeating group attribute
  - multi-valued dependencies
  - transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- merge
  - njoin
  - select
  - project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- user field.
  - user attribute.
  - user view.
  - user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- no partial or transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- view
  - trigger
  - index
  - stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- data constraints
  - integrity constraints
  - table constraints
  - relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- project
  - select
  - product
  - union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- Integrity constraint
  - Database design
  - Data dependence
  - Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- The entity should not be in the relationship as an attribute.
  - The entity is not required in the relationship.
  - The entity has a mandatory role in the relationship.
  - The entity must be listed with all zeroes in the data fields.

Name: Dianaliz Jardines

Panther-ID: 6105985

Answer all twenty questions. Circle the most suitable option on this booklet.

15  
-----  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.  
 a. bottom-up design methodology      c. listing design methodology  
 b. top-down design methodology      d. original design methodology
  
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:  
 a. 4       c. 2  
 b. 6       d. 8
  
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.  
 a. table constraints  
 b. data constraints  
 c. integrity constraints  
 d. relational constraints
  
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:  
 a. only transitive dependency      c. only partial dependency  
 b. both partial and transitive dependencies      d. no partial or transitive dependency
  
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?  
 a. Integrity constraint      c. Data dependence  
 b. Database design       d. Data independence
  
6. How many internal schema will be there in a database?  
 a. one      c. several  
 b. one per view      d. none of the above
  
7. A table that is in 3NF but not in 4NF, will contain:  
 a. transitive dependency       c. multi-valued dependencies  
 b. partial dependency      d. repeating group attribute
  
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:  
 a. user table.       c. user view.  
 b. user field.      d. user attribute.
  
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:  
 a. Fourth normal form      c. First normal form  
 b. Second normal form       d. Third normal form
  
10. Which command of relational algebra outputs a vertical subset of a table?  
 a. select       c. project  
 b. union      d. product

8

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. one line of output is produced for each group
  - c. the totals appear with the rows
  - d. the rows appear in order

Name: Jazlin JimenezPanther-ID: 5734449

Answer all twenty questions. Circle the most suitable option on this booklet.

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute  $\times$
  - c. T functionally determines another attribute in the table  $\times$
  - d. S functionally determines T
2. A(n) trigger is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce legal-values integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as top-down design methodology.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is SELECT-FROM-WHERE.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on deletions.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. change column names
  - c. create an additional table
  - d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- a. partial dependency
  - b. repeating group attribute
  - c. multi-valued dependencies
  - d. transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. merge
  - b. njoin
  - c. select
  - d. project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- a. user field.
  - b. user attribute.
  - c. user view.
  - d. user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- a. no partial or transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. view
  - b. trigger
  - c. index
  - d. stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- a. data constraints
  - b. integrity constraints
  - c. table constraints
  - d. relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- a. project
  - b. select
  - c. product
  - d. union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- a. The entity should not be in the relationship as an attribute.
  - b. The entity is not required in the relationship.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.

Name: Huntz Michko

Panther-ID: 4012427

Answer all twenty questions. Circle the most suitable option on this booklet.

11  
-----  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,;
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is d.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on d.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

6

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?  
a. define a new database  
b. change column names  
c. create an additional table  
d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:  
a. partial dependency  
b. repeating group attribute  
c. multi-valued dependencies  
d. transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?  
a. merge  
b. njoin  
c. select  
d. project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:  
a. user field.  
b. user attribute.  
c. user view.  
d. user table.
15. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:  
a. no partial or transitive dependency  
b. both partial and transitive dependencies  
c. only partial dependency  
d. only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):  
a. view  
b. trigger  
c. index  
d. stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.  
a. data constraints  
b. integrity constraints  
c. table constraints  
d. relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?  
a. project  
b. select  
c. product  
d. union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?  
a. Integrity constraint  
b. Database design  
c. Data dependence  
d. Data independence
20. What does it mean when an entity has a minimum cardinality of one?  
a. The entity should not be in the relationship as an attribute.  
b. The entity is not required in the relationship.  
c. The entity has a mandatory role in the relationship.  
d. The entity must be listed with all zeroes in the data fields.

Name: Pablo Monzon

Panther-ID: 3354490

Answer all twenty questions. Circle the most suitable option on this booklet.

18  
-----  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
  
2. A(n)  is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
  
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
  
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
  
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
  
6. When rows are grouped,
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
  
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
  
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
  
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
  
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

8

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- define a new database
  - change column names
  - create an additional table
  - merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- partial dependency
  - repeating group attribute
  - multi-valued dependencies
  - transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- merge
  - njoin
  - select
  - project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- user field.
  - user attribute.
  - user view.
  - user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- no partial or transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- view
  - trigger
  - index
  - stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- data constraints
  - integrity constraints
  - table constraints
  - relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- project
  - select
  - product
  - union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- Integrity constraint
  - Database design
  - Data dependence
  - Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- The entity should not be in the relationship as an attribute.
  - The entity is not required in the relationship.
  - The entity has a mandatory role in the relationship.
  - The entity must be listed with all zeroes in the data fields.

Name: Christian MoreyraPanther-ID: 5906682

Answer all twenty questions. Circle the most suitable option on this booklet.

13
20

- The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - bottom-up design methodology
  - top-down design methodology
  - listing design methodology
  - original design methodology
- Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - 4
  - 6
  - 2
  - 8
- Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - table constraints
  - data constraints
  - integrity constraints
  - relational constraints
- A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
  - only transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - no partial or transitive dependency
- What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - Integrity constraint
  - Database design
  - Data dependence
  - Data independence
- How many internal schema will be there in a database?
  - one
  - one per view
  - several
  - none of the above
- A table that is in 3NF but not in 4NF, will contain:
  - transitive dependency
  - partial dependency
  - multi-valued dependencies
  - repeating group attribute
- A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - user table.
  - user field.
  - user view.
  - user attribute.
- A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - Fourth normal form
  - Second normal form
  - First normal form
  - Third normal form
- Which command of relational algebra outputs a vertical subset of a table?
  - select
  - union
  - project
  - product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order

Name: Matthew Novilla

Panther-ID: 5380539

Answer all twenty questions. Circle the most suitable option on this booklet.

16  
-----  
20

1. The design strategy in which user requirements are synthesized into a design, is known as A.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as C.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

8

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order



Name: Elena Murga

Panther-ID: 5642940

Answer all twenty questions. Circle the most suitable option on this booklet.

14  
-----  
20

- 1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - ~~c. T functionally determines another attribute in the table~~
  - ~~d. S functionally determines T~~

- 2. A(n) a is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index

- 3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - ~~a. Fourth normal form~~
  - ~~b. Third normal form~~
  - c. First normal form
  - d. Second normal form

- 4. In SQL, you use the CHECK clause to enforce a integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential

- 5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2

- 6. When rows are grouped,
  - a. the rows appear in order
  - ~~b. the totals appear with the rows~~
  - c. no output is produced
  - d. one line of output is produced for each group

- 7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above

- 8. The design strategy in which user requirements are synthesized into a design, is known as c.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology

- 9. The basic form of an SQL retrieval command is a.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE

- 10. Tables with indexes allows faster searches, but slows performance on d.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. ~~define a new database~~
  - b. ~~change column names~~
  - c.  create an additional table
  - d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- a. partial dependency
  - b. repeating group attribute
  - c. multi-valued dependencies
  - d.  transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. ~~merge~~
  - b.  njoin
  - c. ~~select~~
  - d. ~~project~~
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- a. user field.
  - b. user attribute.
  - c. user view.
  - d.  user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- a. no partial or transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d.  only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. view
  - b. trigger
  - c. ~~index~~
  - d.  stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- a. ~~data constraints~~
  - b.  integrity constraints
  - c. ~~table constraints~~
  - d. ~~relational constraints~~
18. Which command of relational algebra outputs a vertical subset of a table?
- a.  project
  - b. ~~select~~
  - c. ~~product~~
  - d. ~~union~~
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- a. Integrity constraint
  - b. Database design
  - c. ~~Data dependence~~
  - d.  Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- a. ~~The entity should not be in the relationship as an attribute.~~
  - b.  The entity is not required in the relationship.
  - c. ~~The entity has a mandatory role in the relationship.~~
  - d. ~~The entity must be listed with all zeroes in the data fields.~~

Name: Kenny Noel

Panther-ID: 4754470

Answer all twenty questions. Circle the most suitable option on this booklet.

8  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
  
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
  
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
  
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
  
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
  
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
  
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
  
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
  
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
  
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order

Name: Javier Pardo

Panther-ID: 3493063

Answer all twenty questions. Circle the most suitable option on this booklet.

12  
-----  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - c. one line of output is produced for each group
  - b. the totals appear with the rows
  - d. the rows appear in order



Name: Antonio Oyoda

Panther-ID: 5705970

Answer all twenty questions. Circle the most suitable option on this booklet.

10  
-----  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
  
2. A(n)  is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
  
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
  
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
  
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
  
6. When rows are grouped,,:
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
  
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
  
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
  
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
  
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

6

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- define a new database
  - change column names
  - create an additional table
  - merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- partial dependency
  - repeating group attribute
  - multi-valued dependencies
  - transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- merge
  - njoin
  - select
  - project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- user field.
  - user attribute.
  - user view.
  - user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- no partial or transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- view
  - trigger
  - index
  - stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- data constraints
  - integrity constraints
  - table constraints
  - relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- project
  - select
  - product
  - union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- Integrity constraint
  - Database design
  - Data dependence
  - Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- The entity should not be in the relationship as an attribute.
  - The entity is not required in the relationship.
  - The entity has a mandatory role in the relationship.
  - The entity must be listed with all zeroes in the data fields.

Name: Michael Rodriguez

Panther-ID: 3586509

Answer all twenty questions. Circle the most suitable option on this booklet.

16  
—  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_  
 a. bottom-up design methodology      c. listing design methodology  
 b. top-down design methodology      d. original design methodology
  
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:  
a. 4      c. 2  
 b. 6       d. 8
  
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.  
 a. table constraints  
 b. data constraints  
 c. integrity constraints  
 d. relational constraints
  
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:  
a. only transitive dependency       c. only partial dependency  
 b. both partial and transitive dependencies      d. no partial or transitive dependency
  
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?  
a. Integrity constraint      c. Data dependence  
 b. Database design       d. Data independence
  
6. How many internal schema will be there in a database?  
a. one       c. several  
 b. one per view      d. none of the above
  
7. A table that is in 3NF but not in 4NF, will contain:  
a. transitive dependency       c. multi-valued dependencies  
 b. partial dependency      d. repeating group attribute
  
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:  
a. user table.       c. user view.  
 b. user field.      d. user attribute.
  
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:  
 a. Fourth normal form      c. First normal form  
 b. Second normal form      d. Third normal form
  
10. Which command of relational algebra outputs a vertical subset of a table?  
a. select       c. project  
 b. union      d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
- a. legal-values
  - c. referential
  - b. entity
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - c. one line of output is produced for each group
  - b. the totals appear with the rows
  - d. the rows appear in order

Name: Jorge Romero

Panther-ID: 6106191

Answer all twenty questions. Circle the most suitable option on this booklet.

11  
-----  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,:
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. change column names
  - c. create an additional table
  - d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- a. partial dependency
  - b. repeating group attribute
  - c. multi-valued dependencies
  - d. transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. merge
  - b. njoin
  - c. select
  - d. project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- a. user field.
  - b. user attribute.
  - c. user view.
  - d. user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- a. no partial or transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. view
  - b. trigger
  - c. index
  - d. stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- a. data constraints
  - b. integrity constraints
  - c. table constraints
  - d. relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- a. project
  - b. select
  - c. product
  - d. union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- a. The entity should not be in the relationship as an attribute.
  - b. The entity is not required in the relationship.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.

Name: Yosmel Sanchez

Panther-ID: 6135322

Answer all twenty questions. Circle the most suitable option on this booklet.

13  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) a is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce b integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,:
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as a.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is a.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on c.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

6

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- define a new database
  - change column names
  - create an additional table
  - merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- partial dependency
  - repeating group attribute
  - multi-valued dependencies
  - transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- merge
  - njoin
  - select
  - project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- user field.
  - user attribute.
  - user view.
  - user table.
15. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
- no partial or transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- view
  - trigger
  - index
  - stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as d.
- data constraints
  - integrity constraints
  - table constraints
  - relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- project
  - select
  - product
  - union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- Integrity constraint
  - Database design
  - Data dependence
  - Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- The entity should not be in the relationship as an attribute.
  - The entity is not required in the relationship.
  - The entity has a mandatory role in the relationship.
  - The entity must be listed with all zeroes in the data fields.

Name: RAFAEL SEARANO

Panther-ID: 6122403

Answer all twenty questions. Circle the most suitable option on this booklet.

9  
-----  
20

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
  
2. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
  
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
  
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
  
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
  
6. When rows are grouped,;
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
  
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
  
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
  
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
  
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. change column names
  - c. create an additional table
  - d. merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- a. partial dependency
  - b. repeating group attribute
  - c. multi-valued dependencies
  - d. transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. merge
  - b. njoin
  - c. select
  - d. project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- a. user field.
  - b. user attribute.
  - c. user view.
  - d. user table.
15. A table Course(D, E, F, G, H) with two FDs as  $\{D, E\} \rightarrow \{F, G, H\}$  and  $\{F\} \rightarrow \{H\}$ , has:
- a. no partial or transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. view
  - b. trigger
  - c. index
  - d. stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- a. data constraints
  - b. integrity constraints
  - c. table constraints
  - d. relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- a. project
  - b. select
  - c. product
  - d. union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- a. The entity should not be in the relationship as an attribute.
  - b. The entity is not required in the relationship.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.

Name: Steven Valle

Panther-ID: 6119707

18  
—  
20

Answer all twenty questions. Circle the most suitable option on this booklet.

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - c. view
  - d. index
12. What does it mean when an entity has a minimum cardinality of one?
- a. The entity is not required in the relationship.
  - b. The entity should not be in the relationship as an attribute.
  - c. The entity has a mandatory role in the relationship.
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - b. stored procedure
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_ integrity.
- a. legal-values
  - b. entity
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- a. T functionally determines another attribute in the table
  - b. S functionally determines T
  - c. S does not determine any other attribute
  - d. T functionally determines S
16. The basic form of an SQL retrieval command is \_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - c. SELECT-WHERE-FROM
  - d. SELECT-FROM-WHERE
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - c. updates
  - d. insertions
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- a. define a new database
  - b. create an additional table
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - c. njoin
  - d. project
20. When rows are grouped,:
- a. no output is produced
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order

Name: Bowen nuPanther-ID: 4625281

Answer all twenty questions. Circle the most suitable option on this booklet.

1. If S (an attribute) is functionally dependent on T, we can also say that
  - a. T functionally determines S
  - b. S does not determine any other attribute
  - c. T functionally determines another attribute in the table
  - d. S functionally determines T
2. A(n) \_\_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
  - a. trigger
  - b. stored procedure
  - c. view
  - d. index
3. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Third normal form
  - c. First normal form
  - d. Second normal form
4. In SQL, you use the CHECK clause to enforce \_\_\_\_\_ integrity.
  - a. legal-values
  - b. entity
  - c. catalog
  - d. referential
5. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 8
  - b. 4
  - c. 6
  - d. 2
6. When rows are grouped,
  - a. the rows appear in order
  - b. the totals appear with the rows
  - c. no output is produced
  - d. one line of output is produced for each group
7. How many internal schema will be there in a database?
  - a. several
  - b. one per view
  - c. one
  - d. none of the above
8. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. original design methodology
  - c. top-down design methodology
  - d. listing design methodology
9. The basic form of an SQL retrieval command is \_\_\_\_\_.
  - a. SELECT-FROM-WHERE
  - b. SELECT-WHERE-FROM
  - c. CREATE-SELECT-FROM
  - d. SELECT-WHERE
10. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
  - a. deletions
  - b. selects
  - c. insertions
  - d. updates

11. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- define a new database
  - change column names
  - create an additional table
  - merge all columns into an existing table
12. A table that is in 3NF but not in 4NF, will contain:
- partial dependency
  - repeating group attribute
  - multi-valued dependencies
  - transitive dependency
13. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- merge
  - njoin
  - select
  - project
14. A set of requirements that is necessary to support the operations of a particular database user is known as a:
- user field.
  - user attribute.
  - user view.
  - user table.
15. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
- no partial or transitive dependency
  - both partial and transitive dependencies
  - only partial dependency
  - only transitive dependency
16. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- view
  - trigger
  - index
  - stored procedure
17. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
- data constraints
  - integrity constraints
  - table constraints
  - relational constraints
18. Which command of relational algebra outputs a vertical subset of a table?
- project
  - select
  - product
  - union
19. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
- Integrity constraint
  - Database design
  - Data dependence
  - Data independence
20. What does it mean when an entity has a minimum cardinality of one?
- The entity should not be in the relationship as an attribute.
  - The entity is not required in the relationship.
  - The entity has a mandatory role in the relationship.
  - The entity must be listed with all zeroes in the data fields.

Name: Mehmet Enes YAPICI

Panther-ID: 5967294

Answer all twenty questions. Circle the most suitable option on this booklet.

7  
20

1. The design strategy in which user requirements are synthesized into a design, is known as \_\_\_\_\_.
  - a. bottom-up design methodology
  - b. top-down design methodology
  - c. listing design methodology
  - d. original design methodology
2. Using the product operator, if table A has 2 rows and table B has 4 rows, the number of rows in the product of these two tables is:
  - a. 4
  - b. 6
  - c. 2
  - d. 8
3. Rules that cause updates to data to be accurate and consistent are known as \_\_\_\_\_.
  - a. table constraints
  - b. data constraints
  - c. integrity constraints
  - d. relational constraints
4. A table Course(D, E, F, G, H) with two FDs as {D, E} → {F, G, H} and {F} → {H}, has:
  - a. only transitive dependency
  - b. both partial and transitive dependencies
  - c. only partial dependency
  - d. no partial or transitive dependency
5. What is the property that lets you change the structure of the database without requiring you to change the programs that access the database?
  - a. Integrity constraint
  - b. Database design
  - c. Data dependence
  - d. Data independence
6. How many internal schema will be there in a database?
  - a. one
  - b. one per view
  - c. several
  - d. none of the above
7. A table that is in 3NF but not in 4NF, will contain:
  - a. transitive dependency
  - b. partial dependency
  - c. multi-valued dependencies
  - d. repeating group attribute
8. A set of requirements that is necessary to support the operations of a particular database user is known as a:
  - a. user table.
  - b. user field.
  - c. user view.
  - d. user attribute.
9. A table with a single attribute primary key and no repeating group attribute, is guaranteed to be in:
  - a. Fourth normal form
  - b. Second normal form
  - c. First normal form
  - d. Third normal form
10. Which command of relational algebra outputs a vertical subset of a table?
  - a. select
  - b. union
  - c. project
  - d. product

11. If you anticipate running a particular query often, you can improve overall performance by saving the query in a special file called a(n):
- a. stored procedure
  - b. trigger
  - ~~c. view~~
  - ~~d. index~~
12. What does it mean when an entity has a minimum cardinality of one?
- ~~a. The entity is not required in the relationship.~~
  - ~~b. The entity should not be in the relationship as an attribute.~~
  - ~~c. The entity has a mandatory role in the relationship.~~
  - d. The entity must be listed with all zeroes in the data fields.
13. A(n) \_\_\_\_ is an action that occurs automatically in response to an associated database operation such as an INSERT, UPDATE, or DELETE command.
- a. view
  - ~~b. stored procedure~~
  - c. trigger
  - d. index
14. In SQL, you use the CHECK clause to enforce \_\_\_\_ integrity.
- ~~a. legal-values~~
  - ~~b. entity~~
  - c. referential
  - d. catalog
15. If S (an attribute) is functionally dependent on T, we can also say that
- ~~a. T functionally determines another attribute in the table~~
  - ~~b. S functionally determines T~~
  - ~~c. S does not determine any other attribute~~
  - ~~d. T functionally determines S~~
16. The basic form of an SQL retrieval command is \_\_\_\_.
- a. SELECT-WHERE
  - b. CREATE-SELECT-FROM
  - ~~c. SELECT-WHERE-FROM~~
  - ~~d. SELECT-FROM-WHERE~~
17. Tables with indexes allows faster searches, but slows performance on \_\_\_\_\_.
- a. selects
  - b. deletions
  - ~~c. updates~~
  - ~~d. insertions~~
18. How would you represent a many to many relationship of a E-R diagram in a relational database design?
- ~~a. define a new database~~
  - ~~b. create an additional table~~
  - c. merge all columns into an existing table
  - d. change column names
19. Which relational algebra (WinRDBI) operation will allow you to retrieve data from more than one table?
- a. select
  - b. merge
  - ~~c. njoin~~
  - ~~d. project~~
20. When rows are grouped,:
- ~~a. no output is produced~~
  - b. the totals appear with the rows
  - c. one line of output is produced for each group
  - d. the rows appear in order