

SQL DATABASE FUNDAMENTALS (345)

REGIONAL – 2018

Multiple Choice:

Multiple Choice (50 @ 10 points each) _____ (500 points)

TOTAL POINTS _____ (***500 points***)

Failure to adhere to any of the following rules will result in disqualification:

- 1. Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.**
- 2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.**
- 3. Electronic devices will be monitored according to ACT standards.**

No more than sixty (60) minutes testing time

Property of Business Professionals of America.
May be reproduced only for use in the Business Professionals of America
Workplace Skills Assessment Program competition.

MULTIPLE CHOICE

Identify the letter of the choice that best completes the statement or answers the question. Mark A if the statement is true. Mark B if the statement is false.

1. Which of the following SQL commands would you use to identify all of the non-duplicate values for a table column?
 - a. UNIQUE
 - b. DIFF
 - c. DISTINCT
 - d. COMPARE
2. A SQL JOIN clause is used to combine data from two or more tables using on a common field between them.
 - a. True
 - b. False
3. Which operator is *true* if the operand matches a pattern?
 - a. BETWEEN
 - b. LIKE
 - c. IN
 - d. None of the above
4. Which of the following is *not* a valid SQL clause?
 - a. TOP
 - b. ORDER BY
 - c. WHERE
 - d. BOTTOM
5. Which SQL function would you use to obtain the number of rows that match specified criteria?
 - a. TOTAL
 - b. COUNT
 - c. AGGREGATE
 - d. SUM
6. The DEFAULT constraint is used to insert a default value into a column.
 - a. True
 - b. False
7. All of the following are *true* statements regarding the “AS” keyword, *except*?
 - a. Applies a permanent alias
 - b. Applies a temporary alias
 - c. Allows renaming of database columns
 - d. Allows renaming of database tables

8. RDBMS is the basis for SQL.
 - a. True
 - b. False
9. Which of the following would you use to add a new record to a database table?
 - a. CREATE ROW
 - b. ADD ROW
 - c. UPDATE TABLE
 - d. INSERT INTO
10. Which of the following is a *valid* SQL constraint?
 - a. LIMIT
 - b. UNIQUE
 - c. DISTINCT
 - d. UNION
11. Which of the following accurately depicts that a value must be present in the EMAIL column for a record (assume this is part of a CREATE statement)?
 - a. EMAIL VARCHAR (255) NOT NULL
 - b. EMAIL VARCHAR (255) REQUIRE
 - c. EMAIL VARCHAR (255) INDEX
 - d. EMAIL VARCHAR (255) NOT BLANK
12. All of the following are situations you would *avoid* using a database index, *except*?
 - a. Tables that frequently have large batch updates.
 - b. Columns that are frequently manipulated.
 - c. Columns that contain a high number of NULL values.
 - d. Tables that have large data sets.
13. Which logical operator compares a value to similar values using wildcard operators?
 - a. IN
 - b. LIKE
 - c. COMPARE
 - d. RELATE
14. Which of the following are *valid* Data Definition Language (DDL) commands?
 - a. CREATE
 - b. DROP
 - c. ALTER
 - d. All of the above
15. What category of data integrity ensures there are no duplicate rows in a table?
 - a. Domain Integrity
 - b. Entity Integrity
 - c. Referential Integrity
 - d. User Defined Integrity

16. Deleting a table definition including all data, indexes, triggers, constraints, and permission for that table is accomplished using which command?
- DELETE
 - DROP
 - TRUNCATE
 - REMOVE
17. A Foreign Key in one table points to a Domestic Key in another table.
- True
 - False
18. What would be the result of executing the following SQL statement?
- ```
UPDATE Members
SET Email='john.smith@bpa.org', State='Michigan'
```
- Only the record for John Smith in the Members table would be updated.
  - All records in the Members table would be updated.
  - The values in the Email and State columns would be the same for all records in the Members table.
  - Both B and C.
19. Relational databases offer what advantages in comparison to a flat file?
- Increased integrity
  - Data redundancy
  - Reduced complexity
  - Both A and B
20. In which of the following would the results *include* displaying the Last Name from A to Z?
- SELECT \* FROM Customers ORDER BY First\_Name ASC, Last Name DESC
  - SELECT \* FROM Customers ORDER BY OrderID ASC, Last Name ASC
  - SELECT \* FROM Customers ORDER BY Last Name DESC, OrderID ASC
  - SELECT \* FROM Customers ORDER BY Last Name DESC, First\_Name ASC
21. Which type of JOIN results in the selection of all rows from two tables as long as there is a match between the columns in each tables?
- FULL OUTER JOIN
  - UNION
  - RIGHT JOIN
  - INNER JOIN
22. All of the following are aggregate functions, *except* \_\_\_\_.
- RAND
  - COUNT
  - MAX
  - AVG

23. In SQL syntax AVG and avg have different meanings.
- True
  - False
24. Of the following data types, in which one could you *not* store the value 123456789?
- VARCHAR(20)
  - INT
  - NCHAR
  - The value can be stored in all of the above datatypes
25. The SQL statement ALTER TABLE CUSTOMERS ADD DATEOFBIRTH VCHAR(20) results in which of the following?
- Adds a new column named DATEOFBIRTH to the CUSTOMERS table
  - Adds a new table named DATEOFBIRTH to the CUSTOMERS database
  - Adds a new row named DATEOFBIRTH to the CUSTOMERS table
  - None of the Above
26. The clause WHERE ACCOUNTNUM LIKE '\_5%3' will match all of the following, *except* \_\_\_\_\_.
- 2533483
  - 45434
  - 85103
  - 953
27. The modulus or remainder of dividing two values can be found using which operator?
- #
  - \*
  - %
  - /
28. To access a database View, a user must have permission to \_\_\_\_\_.
- all tables
  - the View
  - only the tables the view references
  - Both B and C
29. In which SQL clause will the results include any rows where an employee is over age 25 that have a salary more than \$40,000 or employees that have a salary of at least \$35,000?
- WHERE (AGE > 25 AND SALARY > 40000) AND SALARY > 35000
  - WHERE (AGE > 25 AND SALARY > 40000) OR SALARY < = 35000
  - WHERE (AGE > 25 AND SALARY > 40000) OR SALARY > = 35000
  - WHERE AGE > 25 AND (SALARY >= 40000 OR SALARY > = 35000)

30. A secured database object has a fully qualified name. Which of the following is *not* part of the fully qualified name?
- Schema
  - Object
  - Principal
  - Server
31. Which of the following statements about Primary Keys is *not* accurate?
- A table may have more than one Primary Key
  - Is not required for a table to have a Primary Key
  - A Primary Key must be unique
  - A Primary Key cannot be NULL
32. What statement would you use to copy data from one table and insert it into an existing table?
- COPY TO SELECT
  - INSERT INTO SELECT
  - ALTER TABLE INSERT
  - INSERT AND UPDATE TABLE
33. Which statement is *true* about the AUTO\_INCREMENT keyword?
- Allows a unique number to be generated when a new record is inserted into a table
  - Must always start at 1
  - Must always be the primary key
  - Both A and C
34. A SQL CHECK constraint \_\_\_\_\_.
- prevents any action that would destroy links between tables
  - limits the values that can be entered in a column
  - prevents entry of numerical values in a column
  - guarantees uniqueness for a column
35. Which type of constraint is used to insert a default value into a column?
- UNIQUE
  - DEFAULT
  - NOT NULL
  - STANDARD
36. There are three parameters for the SQL MID() function.,. Which of the following is *not* required?
- Column name
  - Start
  - Length
  - All parameters are required

37. Examples of SQL Scalar functions include all of the following, *except* \_\_\_\_\_.  
a. ROUND()  
b. LEN()  
c. FORMAT()  
d. SUM()
38. The maximum number of characters for a SQL Server VARCHAR() column is \_\_\_\_\_.  
a. 255  
b. 1024  
c. 8000  
d. 32,767
39. CRUD =  
a. Create, Relate, Update, Delete  
b. Create, Relate, Upload, Data  
c. Create, Read, Update, Delete  
d. Create, Read, Update, Data
40. Constraints can only be applied at the time a table is created?  
a. True  
b. False
41. In the example below, does the SELECT clause has a computed value?  
SELECT CustomerName, UnitPrice \* NumberofUnits FROM Orders  
a. True  
b. False
42. Which of the following SQL statements *deletes* all rows in table called CustomerOrders?  
a. DELETE CustomerOrders  
b. DELETE \* FROM CustomerOrders  
c. DELETE ALL CustomerOrders  
d. DELETE FROM CustomerOrders
43. What will be the result of the following SQL statement?  
SELECT LEFT('Enjoy the little things', 5)  
a. Enjoy  
b. things  
c. the little things  
d. Nothing, an error will occur
44. Which of the following SQL clauses is used to *sort* a result set?  
a. SORT  
b. ORDER BY  
c. ARRANGE  
d. SORT ORDER

45. The WHERE clause is required for a SQL UPDATE statement.
- True
  - False
46. Which keyword selects all rows from both tables as long as there is a match between the columns in both tables?
- LEFT JOIN
  - RIGHT JOIN
  - INNER JOIN
  - FULL OUTER JOIN
47. The Boolean data type stores TRUE or FALSE values.
- True
  - False
48. Creating database queries is part of the Data Definition Language.
- True
  - False
49. Which of the following is *not* a valid format for the DATEPART function?
- ns
  - qq
  - dy
  - mh
50. The following SQL statement demonstrates an example of \_\_\_\_\_.

```
SELECT a.studentid, a.name, b.gpa
FROM student a, grades b
WHERE a.studentid = b.studentid AND b.gpa >
(SELECT gpa
FROM grades
WHERE studentid = 'G1023');
```

- Intersect
- Sub query
- Array
- Constraint





# SQL DATABASE FUNDAMENTALS (345)

REGIONAL – 2018

*TOTAL POINTS*

\_\_\_\_\_ (*500 points*)

**Graders: Please double check and verify all scores and answer keys!**

Property of Business Professionals of America.  
May be reproduced only for use in the Business Professionals of America  
*Workplace Skills Assessment Program* competition.



- |     |   |     |   |
|-----|---|-----|---|
| 1.  | C | 26. | B |
| 2.  | A | 27. | C |
| 3.  | B | 28. | B |
| 4.  | D | 29. | C |
| 5.  | B | 30. | C |
| 6.  | A | 31. | A |
| 7.  | A | 32. | B |
| 8.  | A | 33. | A |
| 9.  | D | 34. | B |
| 10. | B | 35. | B |
| 11. | A | 36. | C |
| 12. | D | 37. | D |
| 13. | B | 38. | C |
| 14. | D | 39. | C |
| 15. | B | 40. | B |
| 16. | B | 41. | A |
| 17. | B | 42. | D |
| 18. | D | 43. | A |
| 19. | D | 44. | B |
| 20. | B | 45. | B |
| 21. | D | 46. | C |
| 22. | A | 47. | A |
| 23. | B | 48. | B |
| 24. | D | 49. | D |
| 25. | A | 50. | B |