

Chapter 2: Basic SQL SELECT Statements

TRUE/FALSE

1. The majority of operations performed on a typical database table utilize the SELECT statement.
ANS: T PTS: 1 REF: 30
2. When a user asks the database a question, the user is issuing a query.
ANS: T PTS: 1 REF: 31
3. Each section of a SQL command that begins with a keyword is known as a statement.
ANS: F PTS: 1 REF: 31
4. A clause is a section within a SQL statement that begins with a keyword.
ANS: T PTS: 1 REF: 31
5. SQL*Plus is an Oracle tool used to enter and edit SQL statements.
ANS: T PTS: 1 REF: 27
6. SQL*Plus can only be accessed via an internet interface.
ANS: F PTS: 1 REF: 27
7. A script file containing SQL statements can be executed from SQL*Plus.
ANS: T PTS: 1 REF: 27
8. The DESCRIBE command is used to view data in a table.
ANS: F PTS: 1 REF: 30
9. A query is accomplished by issuing a SELECT statement.
ANS: T PTS: 1 REF: 31
10. The asterisk symbol (*) can be used in a SELECT statement to indicate that all rows in the table should be displayed in the results.
ANS: F PTS: 1 REF: 31|32
11. A user can indicate that all columns of a table should be displayed in the results of a SELECT statement by including an asterisk (*) in the SELECT clause.
ANS: T PTS: 1 REF: 31|32
12. Column headings may be truncated in the results of a SELECT statement.

ANS: T PTS: 1 REF: 32

13. The SELECT clause of the SELECT statement is used to identify which rows are to be retrieved from a specified table.

ANS: F PTS: 1 REF: 31

14. Choosing specific columns to be displayed by a SELECT statement is known as selection.

ANS: F PTS: 1 REF: 33

15. Choosing specific columns to be displayed by a SELECT statement is known as projection.

ANS: T PTS: 1 REF: 33

16. If a column name is entered in lower case in the SELECT statement, the data for the column will be displayed in lower case in the results.

ANS: F PTS: 1 REF: 34

17. If multiple column names are listed in the SELECT clause of a SELECT statement, the columns must be separated by a comma (,).

ANS: T PTS: 1 REF: 34|35

18. The columns displayed in the results of a SELECT statement will be in the same order as they are stored in the database table.

ANS: F PTS: 1 REF: 35

19. If you assign a column alias to a column, it must be enclosed in double quotation marks (" ").

ANS: F PTS: 1 REF: 37

20. By default, a column alias is displayed in lower case characters in the results.

ANS: F PTS: 1 REF: 37

21. The optional keyword AS can be used to indicate that the subsequent string of characters is a column alias.

ANS: T PTS: 1 REF: 36|37

22. The following arithmetic operations can be performed in the SELECT clause of a SELECT statement: addition (+), subtraction (-), multiplication (*), division (/), and exponential (^).

ANS: F PTS: 1 REF: 39

23. Parentheses can be used to override the order of operations in an arithmetic expression.

ANS: T PTS: 1 REF: 39

24. The DIST or UNIQ keywords can be used to suppress duplicate data in the results of a SELECT statement.

ANS: F PTS: 1 REF: 42|43

25. Concatenation refers to combining the results of several SELECT statements into one result.

ANS: F PTS: 1 REF: 44|45

26. A double backslash (\\) is used to indicate concatenation in a SELECT statement.

ANS: F PTS: 1 REF: 44|45

MODIFIED TRUE/FALSE

1. A(n) CRBMDS is a software program that can be used to create a relational database and allows you to enter, manipulate, and retrieve data. _____

ANS: F, RDBMS

PTS: 1 REF: 30|31

2. A(n) WHERE statement allows a user to retrieve data from a database table.

ANS: F, SELECT

PTS: 1 REF: 30|31

3. The syntax for a SQL statement gives the basic structure required to execute the statement.

ANS: T PTS: 1 REF: 30|31

4. A query can be executed in the SQL*Plus tool. _____

ANS: T PTS: 1 REF: 30|31

5. Each section of a statement that begins with a keyword is known as a(n) buffer.

ANS: F, clause

PTS: 1 REF: 31

6. The only required clauses for a SELECT statement are the WHERE and FROM clauses.

ANS: F, SELECT

PTS: 1 REF: 31

7. The ALL option can be used in the SELECT clause to indicate that all columns should be retrieved. _____

ANS: F, *

PTS: 1 REF: 31

8. Each clause of a SELECT statement must be entered on a new line in SQL*Plus.
-

ANS: F, optional

PTS: 1 REF: 31

9. The SELECT clause identifies the table containing the data to be queried.
-

ANS: F, FROM

PTS: 1 REF: 31

10. A column heading that is longer than the width of a column will not be truncated for a column that is defined to store character data. _____

ANS: F, numeric

PTS: 1 REF: 32

11. The SELECT command can be used to display the structure of a database table.
-

ANS: F, DESCRIBE

PTS: 1 REF: 29

12. Choosing specific columns from a database through a SELECT statement is known as projection.
-

ANS: T PTS: 1 REF: 33

13. In a(n) SELECT statement, keywords, table names, and column names are not case sensitive.
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ANS: T PTS: 1 REF: 31

14. When listing more than one column name in the SELECT clause of a SELECT statement, the column names must be separated by semicolons. _____

ANS: F, commas

PTS: 1 REF: 34|35

15. The use of a column alias in the SELECT clause can be designated by the keyword ALIAS.
-

ANS: F, AS

PTS: 1 REF: 36|37

16. If a column alias contains a blank space, it must be enclosed in double quotation marks.

ANS: T PTS: 1 REF: 37

17. By default, data within a numeric column is right-aligned when it is displayed.

ANS: T PTS: 1 REF: 38

18. By default, data within a character or data column is right-aligned when it is displayed.

ANS: F, left

PTS: 1 REF: 38

19. Insignificant zeros are displayed for numeric columns by default to show two decimal places.

ANS: F, are not

PTS: 1 REF: 39

20. When solving arithmetic expressions, Oracle11g always resolves addition and subtraction operations first from left to right in the expression. _____

ANS: F, last

PTS: 1 REF: 39

21. Parentheses can be used to override the order of operations in an arithmetic expression.

ANS: T PTS: 1 REF: 39

22. The DISTINCT keyword can be used to indicate that duplicate data should be suppressed in the results of a query. _____

ANS: T PTS: 1 REF: 42

23. Combining the contents of two or more columns is known as projection.

ANS: F, concatenation

PTS: 1 REF: 44|45

24. A string literal must be enclosed in double quotation marks. _____

ANS: F, single

MULTIPLE CHOICE

1. Which of the following commands is used to issue a query?
- a. QUER
 - b. FROM
 - c. SELECT
 - d. QUESTION

ANS: C PTS: 1 REF: 31

2. A(n) ____ has a predefined meaning in Oracle11g.
- a. keyword
 - b. statement
 - c. syntax
 - d. clause

ANS: A PTS: 1 REF: 31

3. What is used to indicate the end of an SQL statement?
- a. /
 - b. :
 - c. ;
 - d. *

ANS: C PTS: 1 REF: 31

4. The ____ for a SQL statement gives the basic structure, or rules, required to execute the statement.
- a. clauses
 - b. keywords
 - c. sequence
 - d. syntax

ANS: D PTS: 1 REF: 31

5. To indicate which database table contains the data to be selected by a query, the table name should be listed in the ____ clause.
- a. SELECT
 - b. FROM
 - c. WHERE
 - d. HAVING

ANS: B PTS: 1 REF: 31

6. Which of the following is a mandatory clause in a SELECT statement?
- a. FROM
 - b. WHERE
 - c. HAVING
 - d. both a and b are mandatory

ANS: A PTS: 1 REF: 31

7. Which of the following symbols represents all the columns contained in a table?
- a. /
 - b. ;
 - c. *
 - d. ^

ANS: C PTS: 1 REF: 31

8. The entire column heading for a column will be displayed, regardless of the assigned width of the column, if the column is defined as a(n) ____ column.
- a. character
 - b. alphanumeric
 - c. date
 - d. numeric

ANS: D PTS: 1 REF: 33

9. Which of the following commands can be used to view the structure of a table?
- a. CONCATENATION
 - c. SELECT

17. Which of the following types of columns will automatically left-align the column heading when it is displayed?
- a. character
 - b. numeric
 - c. date
 - d. both a and c
- ANS: D PTS: 1 REF: 38
18. What is the correct answer for the arithmetic expression $9+2*3-2$ using the order of operations employed by Oracle10g when solving equations?
- a. 13
 - b. 31
 - c. 10
 - d. 12
- ANS: A PTS: 1 REF: 39
19. What is the correct solution for the arithmetic expression $2+8/2*9/3$ using the order of operations employed by Oracle10g when solving equations?
- a. 0.1
 - b. 4.8
 - c. 15
 - d. 14
- ANS: D PTS: 1 REF: 39
20. What is the correct answer for the arithmetic expression $9+2*(3-4)$ using the order of operations employed by Oracle10g when solving equations?
- a. -11
 - b. -18
 - c. 9
 - d. 7
- ANS: D PTS: 1 REF: 39
21. What is the correct solution for the arithmetic expression $(2+8)/2*9/3$ using the order of operations employed by Oracle10g when solving equations?
- a. 1.336
 - b. 4.8
 - c. 15
 - d. 14
- ANS: C PTS: 1 REF: 39
22. Which of the following keywords can be included in a SELECT statement to suppress duplicate data?
- a. UNIQ
 - b. DISTINCT
 - c. SUPPRESS
 - d. all of the above
- ANS: B PTS: 1 REF: 42
23. Which of the following symbols can be used to combine data from different columns into one column of output?
- a. ||
 - b. ^
 - c. %
 - d. *
- ANS: A PTS: 1 REF: 44|45
24. Combining the contents of two or more columns is known as ____.
- a. projection
 - b. concatenation
 - c. selection
 - d. suppression
- ANS: B PTS: 1 REF: 44|45
25. A string literal must be enclosed in ____.

- a. single quotation marks (' ')
- b. double quotation marks (" ")
- c. asterisks (* *)
- d. percent signs (% %)

ANS: A PTS: 1 REF: 45

Contents of the PUBLISHER table

PUBID	NAME	CONTACT	PHONE
1	PRINTING IS US	TOMMIE SEYMOUR	000-714-8321
2	PUBLISH OUR WAY	JANE TOMLIN	010-410-0010
3	AMERICAN PUBLISHING	DAVID DAVIDSON	800-555-1211
4	READING MATERIALS INC.	RENEE SMITH	800-555-9743
5	REED-N-RITE	SEBASTIAN JONES	800-555-8284

26. Based upon the contents of the PUBLISHER table, which of the following SELECT statements will display the publisher's name first in the results?
- a. SELECT * FROM publisher;
 - b. SELECT pubid, contact FROM publisher;
 - c. SELECT name, publisherID FROM publishers;
 - d. none of the above

ANS: D PTS: 1 REF: 31|35

27. Based upon the contents of the PUBLISHER table, which of the following is not a valid SQL statement?
- a. SELECT * FROM publisher;
 - b. SELECT name, contact FROM publisher/
 - c. SELECT name, phone
FROM publisher
/
 - d. SELECT *
FROM publisher;

ANS: B PTS: 1 REF: 34|35

28. Based upon the contents of the PUBLISHER table, which of the following is a valid SQL statement?
- a. SELECT contact Contact's Name
FROM publisher;
 - b. SELECT contact, name
FROM publisher;
 - c. SELECT publisherID
FROM publisher;
 - d. SELECT name
FROM publishers;

ANS: B PTS: 1 REF: 34|35

29. Based upon the contents of the PUBLISHER table, which of the following is a valid SQL statement?
- a. SELECT * FROM pubid;
 - b. SELECT * FROM name;

- c. SELECT * FROM contact;
- d. SELECT * FROM publisher;

ANS: D PTS: 1 REF: 31|32

30. Based upon the contents of the PUBLISHER table, which of the following SQL statements will display only two columns in the results?
- a. SELECT * FROM publisher;
 - b. SELECT contact name FROM publisher;
 - c. SELECT contact person, name FROM publisher;
 - d. none of the above

ANS: C PTS: 1 REF: 34|35

31. Based upon the contents of the PUBLISHER table, which of the following SQL statements will execute without returning an error message?
- a. SELECT pubid PUBLISHERID name FROM publisher;
 - b. SELECT pubid name FROM publisher;
 - c. SELECT pubid "PUBLISHER ID" name FROM publisher;
 - d. all of the above

ANS: B PTS: 1 REF: 34|37

Contents of the BOOKS table

ISBN	TITLE	PUBDATE	PUBID	COST	RETAIL	CATEGORY
1059831198	BODYBUILD IN 10 MINUTES A DAY	21-JAN-01	4	18.75	30.95	FITNESS
0401140733	REVENGE OF HICKEY	14-DEC-01	1	14.2	22	FAMILY LIFE
4981341710	BUILDING A CAR WITH TOOTHPICKS	18-MAR-02	2	37.8	59.95	CHILDRENS
8843172113	DATABASE IMPLEMENTATION	04-JUN-99	3	31.4	55.95	COMPUTERS
3437212490	COOKING WITH MUSHROOMS	28-FEB-00	4	12.5	19.95	COOKING
3957136468	HOLY GRAIL OF ORACLE	31-DEC-01	3	47.25	75.95	COMPUTERS
1915762492	HANDCRANKED COMPUTERS	21-JAN-01	3	21.8	25	COMPUTERS
9959789321	E-BUSINESS THE EASY WAY	01-MAR-02	2	37.9	54.5	COMPUTERS
2491748320	PAINLESS CHILD-REARING	17-JUL-00	5	48	89.95	FAMILY LIFE
0299282519	THE WOK WAY TO COOK	11-SEP-00	4	19	28.75	COOKING
8117949391	BIG BEAR AND LITTLE DOVE	08-NOV-01	5	5.32	8.95	CHILDRENS
0132149871	HOW TO GET FASTER PIZZA	11-NOV-02	4	17.85	29.95	SELF HELP
9247381001	HOW TO MANAGE THE MANAGER	09-MAY-99	1	15.4	31.95	BUSINESS
2147428890	SHORTEST POEMS	01-MAY-01	5	21.85	39.95	LITERATURE

32. Which of the following SQL statements will display the profit generated by each book currently stored in the BOOKS table?
- a. SELECT * FROM books;
 - b. SELECT title, retail, cost profit FROM books;
 - c. SELECT title, retail-cost FROM books;
 - d. all of the above

ANS: C PTS: 1 REF: 39

33. Based upon the contents of the BOOKS table, which of the following columns will be displayed with a right-aligned column heading?
- a. title
 - b. pubdate
 - c. category
 - d. pubid

ANS: D PTS: 1 REF: 38

34. Based upon the contents of the BOOKS table, which of the following is a valid SQL statement?

- a. select pubid, isbn, from books;
- b. select * FROM pubid;
- c. select pubid, "Publisher ID" from books;
- d. none of the above

ANS: D PTS: 1 REF: 31|35

35. Which of the following is a valid SQL statement?
- a. SELECT title, retail-cost FROM books;
 - b. SELECT title, retail-cost "Profit"
 - c. SELECT DISTINCT title, category
FROM books/
 - d. all of the above

ANS: A PTS: 1 REF: 39

36. Based upon the contents of the BOOKS table, which of the following SQL statements will display two columns in its output?
- a. SELECT * FROM books;
 - b. SELECT title, retail-cost "Profit" FROM books;
 - c. SELECT DISTINCT title FROM books;
 - d. all of the above

ANS: B PTS: 1 REF: 37|39

37. Which of the following will display the ISBN column of the BOOKS table as the first column in its results?
- a. SELECT * FROM books;
 - b. SELECT DISTINCT category, ISBN FROM books;
 - c. SELECT ISBN, title FROM books;
 - d. both a and c above

ANS: D PTS: 1 REF: 35

38. Based upon the contents of the BOOKS table, which of the following SQL statements will display five rows in its results?
- a. SELECT DISTINCT category FROM books;
 - b. SELECT DISTINCT pubid FROM books;
 - c. SELECT UNIQUE pubid, title FROM books;
 - d. both b and c

ANS: B PTS: 1 REF: 42

39. Which of the following will display the new retail price of each book as 20 percent more than it originally cost?
- a. SELECT title, cost+.20 "New Retail Price" FROM books;
 - b. SELECT title, cost*.20 "New Retail Price" FROM books;
 - c. SELECT title, cost*1.20 "New Retail Price" FROM books;
 - d. none of the above

ANS: C PTS: 1 REF: 36|39

40. Based upon the contents of the BOOKS table, which of the following SQL statements will display the retail price for two copies of each book currently in inventory?
- a. SELECT * FROM books;
 - b. SELECT title, retail+retail FROM books;

- c. SELECT title, retail^2 FROM books;
- d. none of the above

ANS: B PTS: 1 REF: 39

Structure of the ORDERS table

Oracle SQL *Plus		
File Edit Search Options Help		
Name	Null?	Type
ORDER#	NOT NULL	NUMBER(4)
CUSTOMER#		NUMBER(4)
ORDERDATE		DATE
SHIPDATE		DATE
SHIPSTREET		VARCHAR2(18)
SHIPCITY		VARCHAR2(15)
SHIPSTATE		VARCHAR2(2)
SHIPZIP		VARCHAR2(5)

41. Based upon the structure of the ORDERS table, which of the following is a valid SQL statement?
- a. SELECT customer # FROM orders;
 - b. SELECT "order#", "customer#" FROM orders;
 - c. SELECT order#, orderdate DateOrdered FROM orders;
 - d. none of the above

ANS: C PTS: 1 REF: 35|39

42. Based upon the structure of the ORDERS table, the column heading for which column will be truncated in the results?
- a. customer#
 - b. orderdate
 - c. shipstreet
 - d. shipzip

ANS: D PTS: 1 REF: 33

43. Which of the following is a valid SQL statement to retrieve data from the ORDERS table?
- a. SELECT DISTINCT customer#, DISTINCT order# FROM orders;
 - b. SELECT customer#, street, city, state, zip FROM orders;
 - c. SELECT order#, orderdate, shipdate FROM orders;
 - d. all of the above

ANS: C PTS: 1 REF: 35

44. Which of the following is a valid SELECT statement?
- a. SELECT order#, || ' was shipped on ' || shipdate;
 - b. SELECT order# || ' was shipped on ' || shipdate;
 - c. SELECT order# || " was shipped on " || shipdate;
 - d. none of the above

ANS: D PTS: 1 REF: 42

45. Which of the following statements can be used to view the structure of the ORDERS table?
- a. SELECT * FROM orders;
 - b. DESCRIBE ORDERS
 - c. LIST ORDERS;
 - d. none of the above

ANS: B PTS: 1 REF: 29

46. Based upon the structure of the ORDERS table, which of the following SQL statements will return an error message upon execution?
- SELECT * FROM orders;
 - SELECT order# customer# FROM orders;
 - SELECT order#, "order number" FROM orders;
 - both b and c

ANS: C PTS: 1 REF: 37

COMPLETION

1. _____ statements can be used to retrieve data from database tables.

ANS: SELECT

PTS: 1 REF: 30|31

2. A _____ is used to end a SQL statement.

ANS: semicolon

PTS: 1 REF: 31

3. The name of the table containing the data to be retrieved is specified in the _____ clause.

ANS: FROM

PTS: 1 REF: 31

4. The names of the columns to be retrieved are listed in the _____ clause.

ANS: SELECT

PTS: 1 REF: 31

5. Oracle11g comes in _____ editions.

ANS: three (personal, standard, enterprise)

PTS: 1 REF: 26

6. A SELECT statement is also referred to as a _____.

ANS: query

PTS: 1 REF: 31

7. If a column heading is longer than the assigned width of a(n) _____ field, the column heading will be truncated.

ANS: character

PTS: 1 REF: 33

8. If a column heading is longer than the assigned width of a character column, the column heading will be _____.

ANS: truncated

PTS: 1 REF: 33

9. Choosing specific columns in a SELECT statement is known as _____.

ANS: projection

PTS: 1 REF: 33

10. A(n) _____ is an alternative column heading displayed in the output of a query.

ANS: column alias

PTS: 1 REF: 36

11. The optional keyword _____ can be used to distinguish between a column name and a column alias.

ANS: AS

PTS: 1 REF: 37

12. If you do not want a column alias to appear in all upper case characters, the column alias must be enclosed in _____ marks.

ANS: double quotation

PTS: 1 REF: 37

13. By default, the data for character fields are displayed _____ aligned when they are displayed.

ANS:
left
left-

PTS: 1 REF: 38

14. By default, the data for a numeric column is _____ aligned when it is displayed.

ANS:
right
right-

PTS: 1 REF: 38

15. You can include _____ to override the order of operations when solving arithmetic expressions.

ANS:
parentheses
()

PTS: 1 REF: 39

16. The _____ keyword can be included in a SELECT statement to suppress the display of duplicate data.

ANS:
UNIQUE
DISTINCT

PTS: 1 REF: 42

17. Combining the contents of two or more columns is known as _____.

ANS: concatenation

PTS: 1 REF: 44|45

18. A(n) _____ can consist of numbers, characters, or special symbols that should be included in the output exactly as entered by the user.

ANS: string literal

PTS: 1 REF: 46

19. A string literal must be enclosed in _____ marks.

ANS:
single quotation
single-quotation
' '

PTS: 1 REF: 46

20. In an arithmetic expression, multiplication and _____ are always solved first in Oracle11g.

ANS: division

PTS: 1 REF: 39

21. When resolving arithmetic expressions, Oracle10g always performs the operations by starting on the _____ side of the expression.

ANS: left

PTS: 1 REF: 39

22. The _____ command can be used to display the structure of a table.

ANS: DESCRIBE

PTS: 1 REF: 29

23. A(n) _____ is included in the SELECT clause to indicate that all columns in the specified table should be listed in the results.

ANS:
asterisk
*

PTS: 1 REF: 31|32

ESSAY

1. When should double-quotation marks (" ") be used in a SELECT statement?

ANS:

Double-quotation marks are used when a column alias included in the SELECT statement contains blank spaces, special symbols, or to indicate that the column alias should be displayed in lower or mixed case.

PTS: 1 REF: 37

2. What are the mandatory clauses of a SELECT statement and what do they represent?

ANS:

The only mandatory clauses of a SELECT statement are the SELECT and FROM clauses. The SELECT clause is used to indicate the columns that are to be displayed in the results while the FROM clause is used to indicate the table containing the data to be displayed.

PTS: 1 REF: 31

3. Explain how the DISTINCT keyword effects a SELECT statement that lists two columns in the SELECT clause.

ANS:

The DISTINCT keyword will only suppress duplicate data if the combination of the data in the two columns is duplicated. If the combination of data in the referenced columns is unique for each record in the table, then each record will still be displayed in the results.

PTS: 1 REF: 42|43