

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.

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 (')
 - c. asterisks (* *)

30. Based upon the contents of the PUBLISHER table, which of the following SQL statements will display only two columns in the results?
- SELECT * FROM publisher;
 - SELECT contact name FROM publisher;
 - SELECT contact person, name FROM publisher;
 - 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?
- SELECT pubid PUBLISHERID name FROM publisher;
 - SELECT pubid name FROM publisher;
 - SELECT pubid "PUBLISHER ID" name FROM publisher;
 - all of the above

ANS: B PTS: 1 REF: 34|37

Contents of the BOOKS table

ISBN	TITLE	PUBDATE	PUBID	COST	RETAIL	CATEGORY
1859831198	BODYBUILD IN 10 MINUTES A DAY	21-JAN-01	4	18.75	38.95	FITNESS
0401140733	REVENGE OF MICKEY	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?
- SELECT * FROM books;
 - SELECT title, retail, cost profit FROM books;
 - SELECT title, retail-cost FROM books;
 - 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?
- title
 - pubdate
 - category
 - 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?
- select pubid, isbn, from books;
 - select * FROM pubid;
 - 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

The screenshot shows the Oracle SQL*Plus interface with a menu bar (File, Edit, Search, Options, Help) and a table structure display. The table has columns: Name, Null?, and Type. The data rows are as follows:

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