

## Chapter 2 Solutions

### Review Questions

1. *What is a data dictionary?* A collection of objects the DBMS manages to maintain information about the database, such as table names, column names, and column data types. This information is often referred as metadata.
2. *What are the two required clauses for a SELECT statement?* SELECT and FROM
3. *What is the purpose of the SELECT statement?* It's used to retrieve data from database tables.
4. *What does the use of an asterisk (\*) in the SELECT clause of a SELECT statement represent?* All columns in the referenced table
5. *What is the purpose of a column alias?* Provides another name for a column that's displayed as the column heading in the output
6. *How do you indicate that a column alias should be used?* Include the AS keyword followed by the alias, or list the alias immediately after the column name without a separating comma.
7. *When is it appropriate to use a column alias?* To provide a more descriptive column heading
8. *What are the guidelines to keep in mind when using a column alias?* If the column alias includes a blank space or special symbols, or should retain the specified letter case, it must be enclosed in quotation marks.
9. *How can you concatenate columns in a query?* Separate the column names with two vertical bars ( || ) rather than a comma.
10. *What is a NULL value?* A NULL value indicates an absence of value. If no value was placed in a field of a row, the field value is empty or NULL.

### Multiple Choice

1. c
2. d
3. d
4. b
5. b
6. c
7. c
8. c
9. d
10. d
11. a
12. c

13. d

14. d

15. c

16. a

17. a

18. b

19. d

20. b

## Hands-On Assignments

1.

```
SELECT *  
FROM books;
```

2.

```
SELECT title  
FROM books;
```

3.

```
SELECT title, pubdate "Publication Date"  
FROM books;
```

4.

```
SELECT customer#, city, state  
FROM customers;
```

5.

```
SELECT name, contact "Contact Person", phone  
FROM publisher;
```

6.

```
SELECT DISTINCT category  
FROM books;
```

or

```
SELECT UNIQUE category  
FROM books;
```

7.

```
SELECT DISTINCT customer#  
FROM orders;
```

or

```
SELECT UNIQUE customer#  
FROM orders;
```

8.  
SELECT category, title  
FROM books;

9.  
SELECT lname || ', ' || fname  
FROM author;

10.  
SELECT order#, item#, isbn, quantity, paideach, quantity\*paideach "Item Total"  
FROM orderitems;

### Advanced Challenge

1.  
SELECT lastname || ', ' || firstname "Name", address, city || ', ' || state "Location", zip  
FROM customers;

2.  
SELECT title, (retail-cost)/cost\*100 "Profit %"  
FROM books;

### Case Study: *City Jail*

Resumes in Chapter 3.