Review Questions – chapter 3

1. What clause must be added to a SELECT statement in a PL/SQL block?
   1. WHERE
   2. TO
   3. INTO
   4. WHERE
2. Which of the following references third row and the ID field of a table of records variable named emp\_tbl?
   1. Emp\_tbl(3).id
   2. Emp\_tbl.id(3)
   3. Id.emp\_table(3)
   4. Id(3).emp\_tbl
3. What type of variable can store only one value?
   1. Implicit cursor
   2. Scalar
   3. %ROWTYPE
   4. Explicit cursor
4. What does the %TYPE attribute instruct the system to do?
   1. Retrieve the database column data type for the variable.
   2. Copy a variable
   3. Retrieve data from the database
   4. Use a Boolean data type
5. Which item is a valid reference to a value in a record variable named rec\_junk?
   1. rec\_junk(1)
   2. rec\_junk(1).col
   3. rec\_junk.col
   4. rec\_junk.col(1)
6. A table of records variable can hold which of the following?
   1. Only one row and many columns of data
   2. Many columns and only one row of data
   3. Many rows and many columns of data
   4. None of the above
7. If a record variable contains a NULL value for a field, how is it treated if it’s used in an UPDATE statement?
   1. The associated column is unaffected
   2. The UPDATE action fails
   3. The associated column is set to null
   4. A record variable can’t hold a NULL value
8. When should you use the %ROWTYPE attribute in creating a record variable? If you need to retrieve many columns. You can accomplish this task more simply by using the %ROWTYPE attribute.
9. Which of the following isn’t an associate array attribute?
   1. VALUE
   2. COUNT
   3. NEXT
   4. FIRST
10. Which of the following is a valid reference to a value in an associative array named tbl\_junk?
    1. tbl\_junk(1).col
    2. tbl\_junk.col
    3. tbl\_junk(1)
    4. tbl\_jun.col(1)
11. What are variables, and why are they needed? Variables are named memory areas that hold values so that they can be retrieved and manipulated in programs.
12. In what way is a SELECT statement different when issued in a PL/SQL block? A SELECT statement is written much the same way as in SQL, with one major exception – an INTO clause must be used. This clause follows the SELECT clause and indicates which variables should hold the values retrieved from the database.
13. Describe how and why the %TYPE attribute is used. When creating variables to hold database column values, the %TYPE attribute can be used in the variable declaration to provide the data type. It tells the system to look up a database column’s data type and use it for the declared variable. Specifying a data type this way is called using an anchored data type.
14. Describe how and why the %ROWTYPE attribute is used. If you need to retrieve many columns you can accomplish this by using the %ROWTYPE attribute to declare a record data type. A $ROWTYPE attribute s similar to %TYPE in that it determines the need data type by referencing a database table structure. This attribute goes a step further and reviews the table structure for all column names and data types and creates the record data type based on this information.
15. Define a composite data type and name two available in PL/SQL. If multiple values need to be stored, such as an entire row from a database table, a record (which is a composite variable) is needed. If you intend to process a number of rows retrieved with a select statement, you might create a cursor, which is a structure specifically suited to processing a group of rows.

Advanced Review Questions – chapter 3

1. Review the following DECLARE section of a block. How is the id value in the record variable referenced in the executable section?

DECLARE

TYPE type\_rec IS RECORD (

Id NUMBER(3),

Brand CHAR(3) );

rec\_one type\_rec;

* 1. type\_rec.id
  2. rec\_one.id
  3. id
  4. type\_rec.rec\_one(id)

1. In the following DECLARE section, what type of variable is v\_junk?

DECLARE

TYPE type\_hunk IS TABLE OF CHAR(1)

INDEX BY BINARY\_INTEGER;

v\_junk type\_junk;

* 1. Scalar
  2. Table of records
  3. Associative array
  4. Cursor

1. What must you do to an UPDATE statement to include it in a PL/SQL block?
   1. You must use a column list.
   2. The statement must contain a WHERE clause.
   3. An UPDATE can’t be included in a block.
   4. No change is necessary.
2. In the following DECLARE section, the JOBS table contains a column named TITLE. How is the TITLE column’s value referenced from the record variable?

DECLARE

TYPE type\_jobs IS TABLE OF jobs%ROWTYPE

INDEX BY BINARY\_INTEGER;

tbl\_jobs type\_jobs;

* 1. tbl\_jobs(2).title
  2. type\_jobs.tbl\_jobs(2).title
  3. tbl\_jobs.title(2)
  4. tbl\_jobs.title.2

1. WHAT’S used when creating a data type for a record variable that needs to hold all the column values from a table?
   1. %TYPE
   2. %ROWTYPE
   3. List of columns
   4. %ROWCOUNT