1. What application model typically displays the user interface in a Web browser?
   1. Client/server
   2. Two-tier
   3. Three-tier
   4. Thin-tier
2. Which of the following is not a type of stored program in PL/SQL?
   1. Procedure
   2. Application trigger
   3. Package
   4. Database trigger
3. The term “named program unit” indicates which of the following?
   1. The PL/SQL block is assigned to a name so that it can be saved and reused.
   2. The PL/SQL block is of a certain type.
   3. The PL/SQL block is executable as an anonymous block.
   4. The PL/SQL block is saved client side.
4. Any application model usually represents which of the following basic components?
   1. User interface
   2. Program logic
   3. Coding style
   4. Database
5. When working with an Oracle database, which of the following is considered an advantage of PL/SQL? (Choose all that apply.)
   1. Tight integration with SQL
   2. Easier naming conventions
   3. Tighter security
   4. Improved performance
6. Which of the following is a free GUI tool from Oracle for editing PL/SQL?
   1. SQL\*Plus
   2. Oracle developer
   3. Oracle SQL developer
   4. Only third-party tools are available
7. Which of the following is an Oracle tool included with the Oracle database server that allows sending SQL and PL/SQL statements to the server?
   1. SQL\*Plus
   2. PL/SQL Builder
   3. PL/SQL Creator
   4. Procedure Builder
8. A procedural programming language allows including which of the following?
   1. Decision-making logic
   2. Inserts
   3. DML statements
   4. Table creation statements
9. “Application portability” refers to the capability to \_\_\_\_\_\_.
   1. Upload and download
   2. Create a small executable
   3. Move to other computer platforms
   4. Transmit data efficiently
10. A two-tier application model is commonly referred to as a (n) \_\_\_\_ application model.
    1. N-tier
    2. Client/server
    3. Double-layered
    4. User-database
11. Name the four types of stored programs unit structures and the basic differences between them.

|  |  |
| --- | --- |
| Stored Program Unit Type | Description |
| Procedure | Performs a task. Can receive and return multiple values. |
| Function | Performs a task and typically returns only one value. Within certain parameters it can be used in SQL statements. |
| Database trigger | Performs a task automatically when a data manipulation language (DML) action occurs on the associated table or system event. |
| Package | Groups related procedures and functions, which makes additional programming features available. |

1. If you aren’t using Oracle development tools, such as Oracle Forms, should you pursue learning PL/SQL? Why or why not? Yes. There are non-Oracle developer tools such as Visual basic where client-side code can be VBScript that includes calls to PL/SQL program units stored on the Oracle server.
2. Describe the major difference between a two-tier and three-tier application model.
   1. In a three-tier application model the user interface is typically displayed in a Web browser and often is referred to as a “thin client”.
   2. Unlike the two-tier model, application code isn’t loaded on the client machine; it’s stored on an application server, also referred to as the “middle tier.” This model has been critical in supporting the explosion of mobile applications.
   3. The three tier models three tiers are the user interface, the application server, and the database server. The Oracle application server allows deploying Oracle Forms applications via the Web and contains the user interface and processing logic, which together respond to user actions and send code to the database server for processing.
3. Describe what a user interface is and the role a procedural language plays in user interfaces.

Customers use it to interact with an application program. The procedural language instructs the computer on what to do in response to a user’s action. It makes it possible for developers to perform decision-making logic in their applications.