Chapter 2: Functions and Control Structures

TRUE/FALSE

1. A function definition contains the lines of code that make up a function.

   ANS: T　　　　　PTS: 1　　　　　REF: 75

2. Functions are placed within parentheses that follow a parameter name.

   ANS: F　　　　　PTS: 1　　　　　REF: 75

3. A function must contain a parameter.

   ANS: F　　　　　PTS: 1　　　　　REF: 76

4. Function arguments are the statements that do the actual work of the function and must be contained within the function braces.

   ANS: F　　　　　PTS: 1　　　　　REF: 76

5. A function executes automatically.

   ANS: F　　　　　PTS: 1　　　　　REF: 77

6. Like variables, function names are case sensitive.

   ANS: F　　　　　PTS: 1　　　　　REF: 78

7. A `return` statement is a statement that returns a value to the statement that called the function.

   ANS: T　　　　　PTS: 1　　　　　REF: 78

8. A function must return a value.

   ANS: F　　　　　PTS: 1　　　　　REF: 78

9. Variable scope refers to the location that a declared variable can be used.

   ANS: T　　　　　PTS: 1　　　　　REF: 82

10. If you attempt to use a local variable outside the function in which it is declared, you receive an error message.

    ANS: T　　　　　PTS: 1　　　　　REF: 82

11. The formal parameters within the parentheses of a function declaration are global variables.

    ANS: F　　　　　PTS: 1　　　　　REF: 82

12. Global variables are automatically available to all parts of your program, including functions.

ANS: F   PTS: 1   REF: 82

13. In PHP, you must declare a global variable with the `global` keyword inside a function definition for the variable to be available within the scope of that function.

ANS: T   PTS: 1   REF: 82-83

14. Using parentheses to enclose the conditional expression of an `if` statement is optional.

ANS: F   PTS: 1   REF: 84

15. If a command block is missing either the opening or closing brace, an error occurs.

ANS: T   PTS: 1   REF: 84

16. The `else` clause can only be used with an `if` statement.

ANS: T   PTS: 1   REF: 88

17. When one decision-making statement is contained within another decision-making statement, they are referred to as multiple decision-making structures.

ANS: F   PTS: 1   REF: 89

18. The `switch` statement controls program flow by executing a specific set of statements, depending on the value of an expression.

ANS: T   PTS: 1   REF: 92

19. The `default` label contains statements that execute when the value returned by the `switch` statement expression does not match any `case` label.

ANS: T   PTS: 1   REF: 93

20. To ensure that the `while` statement will eventually end, you must include code within the body of the while statement that changes the value of the conditional expression.

ANS: T   PTS: 1   REF: 99

21. You can use the `terminate` statement to halt a looping statement and restart the loop with a new iteration.

ANS: F   PTS: 1   REF: 99

22. The `do...while` statement executes a statement or statements once, then repeats the execution as long as a given conditional expression evaluates to `TRUE`.

ANS: T   PTS: 1   REF: 100

23. The statements in a `do...while` statement always execute repeatedly before the conditional expression evaluates the count variable.

ANS: F   PTS: 1   REF: 101

24. The `for` statement performs essentially the same function as the `while` statement.

ANS: T   PTS: 1   REF: 103

25. One of the primary differences between the `while` statement and the `for` statement is that in addition to a conditional expression, the `for` statement can also include code that initializes a counter and changes its value with each iteration.

ANS: T   PTS: 1   REF: 103

26. The `for...while` statement is used to iterate or loop through the elements in an array.

ANS: F   PTS: 1   REF: 105

27. You will not receive an error if you attempt to use a `foreach` statement with any variable types other than arrays.

ANS: F   PTS: 1   REF: 106

28. The primary use of the `include` and `require` statements is to reuse content on multiple web pages by allowing you to insert the content of an external file, called an include file, in your PHP scripts.

ANS: T   PTS: 1   REF: 109-110

29. The `include` statement and the `require` statement perform the same function and can be used interchangeably.

ANS: F   PTS: 1   REF: 110

30. `Include` statements support only absolute path notation.

ANS: F   PTS: 1   REF: 111

MULTIPLE CHOICE

1. When you use a variable in a PHP program, you must be aware of the variable's _____.
   a. placement   c. function
   b. scope   d. statement

   ANS: B   PTS: 1   REF: 82

2. A variable's scope can be either global or _____.
   a. local   c. universal
   b. undeclared   d. declared

   ANS: A   PTS: 1   REF: 82

3. What will be returned if you use a local variable outside the function in which it is declared?
   a. value   c. function
   b. error message   d. nothing

ANS: B   PTS: 1   REF: 82

4. The parameters within the parentheses of a function declaration are what kind of variables?
    a. local   c. unknown
    b. global   d. declared

ANS: A   PTS: 1   REF: 82

5. With many programming languages, global variables are automatically available to all parts of your program, including _____.
    a. statements   c. functions
    b. definitions   d. declarations

ANS: C   PTS: 1   REF: 82

6. When you declare a global variable with the `global` keyword, you do not need to assign the variable a(n) _____.
    a. value   c. function
    b. definition   d. name

ANS: A   PTS: 1   REF: 83

7. A command block is a group of statements within a set of opening and closing _____.
    a. brackets   c. parentheses
    b. braces   d. quotation marks

ANS: B   PTS: 1   REF: 84

8. When one decision-making statement is contained within another decision-making statement it is referred to as a _____ decision-making structure.
    a. enclosed   c. nested
    b. contained   d. layered

ANS: C   PTS: 1   REF: 89

9. Which of the following terms is not associated with the switch statement?
    a. `switch` title   c. executable statements
    b. `case` label   d. `break` keyword

ANS: A   PTS: 1   REF: 92

10. A(n) _____ statement is a control structure that repeatedly executes a statement or series of statements while a specific condition is TRUE or until a specific condition becomes TRUE.
    a. repeat   c. loop
    b. replicate   d. circular

ANS: C   PTS: 1   REF: 96

11. A _____ is a variable that increments or decrements with each iteration of a loop statement
    a. counter   c. iterator
    b. incrementer/decrementer   d. repetitor

ANS: A   PTS: 1   REF: 96

12. If you do not include code that changes the value used the by the condition expression, your program will be caught in a _____ loop.

a. continuous
c. constant
b. continuing
d. infinite

ANS: D   PTS: 1   REF: 99

13. A ____ statement is used to iterate or loop through the elements in an array.
a. `for`
c. `foreach`
b. `while`
d. `if...else`

ANS: C   PTS: 1   REF: 105

14. The ____ statement halts the processing of the web page and displays an error if an include file cannot be found.
a. include
c. Insert-contents
b. insert
d. require

ANS: D   PTS: 1   REF: 110

15. The ____ file is typically saved with a prefix of inc_.
a. insert
c. nested
b. include
d. increment

ANS: B   PTS: 1   REF: 110

COMPLETION

1. Groups of statements you can execute as a single unit are called _____.

ANS: functions

PTS: 1   REF: 75

2. _____-control statements allow you to determine the order in which statements execute in a program.

ANS: Flow

PTS: 1   REF: 83

3. The function _____ is the lines of code that make up a function

ANS: definition

PTS: 1   REF: 75

4. A formal _____ is a variable that is used within a function.

ANS: parameter

PTS: 1   REF: 75

5. A function _____ executes a function

ANS: call

PTS: 1   REF: 77

6. A _____ statement is a statement that returns a value to the statement that called the function.

ANS: return

PTS: 1   REF: 78

7. Passing by _____ means that the actual variable is used within the function and any changes made to the variable by the function will remain after the function completes.

ANS: reference

PTS: 1   REF: 80

8. A _____ variable is declared outside a function and is available to all parts of the program.

ANS: global

PTS: 1   REF: 82

9. A _____ variable is declared inside a function and is only available within the function in which it is declared.

ANS: local

PTS: 1   REF: 82

10. You must use the _____ keyword to declare a global variable within the scope of a function.

ANS: global

PTS: 1   REF: 82-83

11. The _____ statement is used to execute specific programming code if the evaluation of a conditional expression returns a value of `true`.

ANS: if

PTS: 1   REF: 84

12. A(n) _____ block is a group of statements contained within a set of braces, similar to the way function statements are contained within a set of braces

ANS: command

PTS: 1   REF: 84

13. An `if` statement that includes an `else` clause is called a(n) _____ statement.

ANS:
if...else
ifelse
if else

PTS: 1   REF: 88

14. When one decision-making statement is contained within another decision-making statement, they are called _____ decision-making structures.

ANS: nested

PTS: 1   REF: 89

15. _____ are added to both the if and else portions of the if...else statement if a section contains more than one statement.

ANS: Braces

PTS: 1   REF: 90

16. The _____ statement controls program flow using a case statement that executing a specific set of statements, depending on the value of an expression.

ANS: switch

PTS: 1   REF: 92

17. The switch statement compares the value of an expression to a value contained within a special statement called a _____.

ANS: case label

PTS: 1   REF: 92

18. A switch statement contains the following components: the keyword switch, an expression, an opening brace, a case label, the executable statements, the keyword _____, a default label, and a closing brace.

ANS: break

PTS: 1   REF: 92

19. case $ExampleVar is an example of a _____ data type being used as a case label

ANS:
variable name
variable

PTS: 1   REF: 93

20. `case "Monday"` is an example of a _____ data type being used as a `case` label.

ANS:
string literal
string
literal

PTS: 1   REF: 93

21. `case 42` is an example of a _____ data type being used as a `case` label.

ANS:
integer literal
integer

PTS: 1   REF: 93

22. `case 125.78` is an example of a _____ data type being used as a `case` label.

ANS:
floating-point literal
floating point
floating-point

PTS: 1   REF: 93

23. The _____ label contains statements that execute when the value returned by the `switch` statement expression does not match a case label.

ANS: default

PTS: 1   REF: 93

24. The final _____ statement after the final `case` or `default` statement is not required.

ANS: break

PTS: 1   REF: 94

25. A(n) _____ statement is a control structure that repeatedly executes a statement or a series of statements while a specific condition is `TRUE` or until a specific condition becomes `TRUE`.

ANS: loop

PTS: 1   REF: 96

26. The _____ statement repeats a statement or series of statements as long as a given conditional expression evaluates to `TRUE`.

ANS: while

PTS: 1   REF: 96

27. The conditional expression in the while statement is enclosed within _____ following the keyword `while`.

ANS:
parentheses
()

PTS: 1   REF: 96

28. Each repetition of a looping statement is called a(n) _____.

ANS: iteration

PTS: 1   REF: 96

29. A _____ statement keeps repeating until its conditional expression evaluates to `FALSE`.

ANS: while

PTS: 1   REF: 96

30. A _____ is a variable that increments or decrements with each iteration of a loop statement.

ANS: counter

PTS: 1   REF: 96

31. In a(n) _____ loop, a loop statement never ends because its conditional expression is never `FALSE`.

ANS: infinite

PTS: 1   REF: 99

32. The _____ loop executes a statement or statements once, then repeats the execution as long as a given conditional expression evaluates to `TRUE`.

ANS:
do...while
do while

PTS: 1   REF: 100

33. The _____ statement is used for repeating a statement or series of statements as long as a given conditional expression evaluates to `TRUE`.

ANS: for

PTS: 1   REF: 103

34. You must include a(n) _____ to separate each section in a for loop.

    ANS:
    semicolon
    ;

    PTS: 1   REF: 104

35. The _____ statement is used to iterate or loop through the elements in an array.

    ANS: foreach

    PTS: 1   REF: 105

36. In a `foreach` statement, you use the $variable_name _____ to access the value of the element that is available in an iteration.

    ANS: argument

    PTS: 1   REF: 106

37. The _____ statement generates a warning if the include file cannot be found.

    ANS: include

    PTS: 1   REF: 110

38. With the _____ statement the program assure that the file is added to the script only once and halts the processing of the web page and displays an error message if the include file cannot be found.

    ANS: require_once

    PTS: 1   REF: 110