Chapter 5
PHP Function and Array

I. Choose The Correct Answer

Question 1.
Which one of the following is the right way of defining a function in PHP?
(a) function {function body }
(b) data type functionName(parameters) {function body}
(c) functionName(parameters) {function body }
(d) function functionName(parameters) { function body }
Answer:
(d) function functionName(parameters) { function body }

Question 2.
A function in PHP which starts with ………. (double underscore) is known as
…………………………
(a) Magic Function
(b) Inbuilt Function
(c) Default Function
(d) User Defined Function
Answer:
(a) Magic Function

Question 3.
PHP's numerically indexed array begin with position ……………………….
(a) 1
(b) 2
(c) 0
(d) -1
Answer:
(c) 0

Question 4.
Which of the following are correct ways of creating an array?
(i) state[0] = "Tamilnadu";
(ii) $state[ ] = arfay("Tamilnadu");
(iii) $state[0] = "Tamilnadu";
(iv) $state = array("Tamilnadu");
(a) (iii) and (iv)
(b) (ii) and (iii)

(c) Only (i)
(d) (ii), (iii) and (iv)
Answer:
(a) (iii) and (iv)

Question 5.
What will be the output of the following PHP code? <?php
$a=array("A","Cat","Dog","A","Dog");
$b=array("A","A","Cat","A","Tiger");
$c=array_combine($a,$b);
print_r(array_count_values($c));
?>
(a) Array ([A] => 5 [Cat] => 2 [Dog] => 2 [Tiger] => 1)
(b) Array ([A] => 2 [Cat] => 2 [Dog] => 1 [Tiger] => 1)
(c) Array ([A] => 6 [Cat] => 1 [Dog] => 2 [Tiger] => 1)
(d) Array ([A] => 2 [Cat] => 1 [Dog] => 4 [Tiger] => 1)
Answer:
(a) Array ([A] => 5 [Cat] => 2 [Dog] => 2 [Tiger] => 1)

Question 6.
For finding nonempty elements in array we use
(a) is_array ( ) function)
(b) sizeof( ) function
(c) array_count ( ) function
(d) count ( ) function
Answer:
(d) count ( ) function

Question 7.
Indices of arrays can be either strings or numbers and they are denoted as
(a) $my_array {4}
(b) $my array [4]
(c) $my_array |4|
(d) None of these
Answer:
(b) $my array [4]

Question 8.
PHP arrays are also called as
(a) Vector arrays
(b) Perl arrays
(c) Hashes
Answer:
(c) Hashes

Question 9.
As compared to associative arrays, vector arrays are much
(a) Faster
(b) Slower
(c) Stable
(d) None of them
Answer:
(b) Slower

Question 10.
What functions count elements in an array?
(a) count
(b) both a and b
(c) Array Count
(d) Count_array
Answer:
(b) both a and b

PART – II
I. Short Answer

Question 1.
Define Function in PHP?
Answer:
In most of the programming language, a block of segment in a program that performs a specific operation tasks (Insert, Execute, Delete, Calculate, etc.). This segment is also known as Function. A Function is a type of sub routine or procedure in a program.

Question 2.
Define User defined Function?
Answer:
User Defined Function:
User Defined Function (UDF) in PHP gives a privilege to user to write own specific operation inside of existing program module.

Function Declaration:
A user-defined Function declaration begins with the keyword "function".

Question 3.
What is parameterized Function?
Answer:
Parameterized Function:

1. PHP Parameterized functions are the functions with parameters or arguments.
2. Required information can be shared between function declaration and function calling part inside the program.
3. The parameter is also called as arguments, it is like variables.
4. The arguments are mentioned after the function name and inside of the parenthesis.
5. There is no limit for sending arguments, just separate them with a comma notation.

Question 4.
List out System defined Functions?
Answer:

1. round
2. cos
3. tan
4. is_number
5. rand etc
6. sqrt
7. sin
8. pi
9. number_format

Question 5.
Define Array in PHP?
Answer:
Array is a concept that stores more than one value of same data type (homogeneous) in single array variable. They are 3 types of array in PHP.

1. Indexed Arrays
2. Associative Array and
3. Multi-Dimensional Array

Question 7.
Usage of Array in PHP?
Answer:
One of the most useful aspects of using arrays in PHP is when combined with the foreach statement. This allows you to quickly loop though an array with very little code.

Question 8.
List out the types of array in PHP?

Answer:

Associative Array	Associative arrays are arrays that use named keys that you assign to them.
Indexed Arrays	The index can be assigned automatically in a collection of data set
Multi-Dimensional Array	A multidimensional array is an array containing one or more arrays.

Question 9.
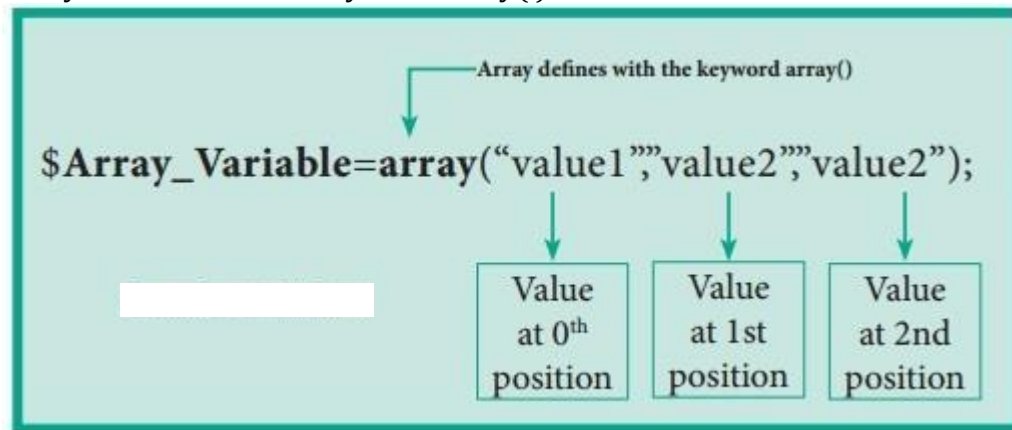Define associative array?
Answer:
Associative arrays are a key-value pair data structure. Instead of having storing data in a linear array, with associative arrays you can store your data in a collection and assign it a unique key which you may use for referencing your data.

Question 10.
Write array Syntax in PHP?
Answer:
Array defines with the keyword array( )

PART – III
III. Explain in Brief Answer

Question 1.
Write the features of System defined Functions?
Answer:
System Defined Functions: A function is already created by system it is a reusable piece or block of code that performs a specific action. Functions can either return values when called or can simply perform an operation without returning any value.
Features of System defined functions:

1. System defined functions are otherwise called as predefined or built-in functions.
2. PHP has over 700 built in functions that performs different tasks.
3. Built in functions are functions that exists in PHP installation package.

Question 2.
Write the purpose of parameterized Function?
Answer:

1. Required information can be shared between function declaration and function calling part inside the program.
2. The parameter is also called as arguments, it is like variables. The arguments are mentioned after the function name and inside of the parenthesis.
3. There is no limit for sending arguments, just separate them with a comma notation.

Question 3.
Differentiate user define and system defined Functions?
Answer:
System defined:

1. These functions are already present in the system (comes along with installation package).
2. Cannot be edited.
3. Name is provided by the developer Eg. isnum( ), isalpha( ).
System defined:

1. These functions are already present in the system (comes along with installation package).
2. Cannot be edited.
3. Name is provided by the developer Eg. isnum( ), isalpha( ).

Question 4.
Write Short notes on Array?
Array in PHP
Answer:
Array is a concept that stores more than one value of same data type (homogeneous) in single array variable. They are 3 types of array concepts in PHP.

1. Indexed Arrays,
2. Associative Array and
3. Multi-Dimensional Array.

Question 5.
Differentiate Associate array and Multidimensional array?

Answer:
Associate array:
Associative arrays are a key-value pair data structure. Instead of having storing data in a*
linear array, with associative arrays you can store your data in a collection and assign it a
unique key which you may use for referencing your data.

Multidimensional array:
A multidimensional array is an array containing one or more arrays. PHP understands
multidimensional arrays that are two, three, four, five, or more levels deep. However,
arrays more than three levels deep are hard to manage for most people.

PART – IV
IV. Explain in detail

Question 1.
Explain Function concepts in PHP?
Answer:
Functions in PHP
In most of the programming language, a block of segment in a program that performs a
specific operation tasks (Insert, Execute, Delete, Calculate, etc.). This segment is also known
as Function. A Function is a type of sub routine or procedure in a program.

Function will be executed by a call to the Function and the Function returns any data type
values or NULL value to called Function in the part of respective program.
The Function can be divided into three types as follows:

1. User defined Function,
2. Pre-defined or System or built-in Function, and
3. Parameterized Function.

1. User Defined Function:
User Defined Function (UDF) in PHP gives a privilege to user to write own specific
operation inside of existing program module. Two important steps the Programmer has to
create for users define Functions are: Function declaration and Function calling.

2. System Define Functions:
A function is already created by system it is a reusable piece or block of code that performs
a specific action. Functions can either return values when called or can simply perform an
operation without returning any value.

3. Parameterized Function:
PHP Parameterized functions are the functions with parameters or arguments.

Question 2.
Discuss in detail about User defined Functions?
Answer:
User Defined Function:

1. User can create their own functions.
2. User Defined Function (UDF) in PHP gives a privilege to user to write own specific operation inside of existing program module.
3. Two important steps the Programmer has to create for users define Functions are:

Function Declaration:
A user-defined Function declaration begins with the keyword "function". User can write any custom logic inside the function block.
Syntax:
function functionName( )
{
Custom Logic code to be executed;
}
Function Calling:
A function declaration part will be executed by a call to the function. Programmer has to create Function Calling part inside the respective program.
Syntax:
functionName( );
Example:
```php
<?php
function insertMsg( )
{
echo "Student Details Inserted Successfully!";
}
insertMsg( ); // call the function
?>
```
Parameterized Function:

1. Required information can be shared between function declaration and function calling part inside the program.
2. The parameter is also called as arguments, it is like variables.
3. The arguments are mentioned after the function name and inside of the parenthesis. There is no limit for sending arguments, just separate them with a comma notation.

Question 3.
Explain the Multidimensional Array?
Answer:
Multidimensional Arrays:

1. A multidimensional array is an array containing one or more arrays.
2. PHP understands multidimensional arrays that are two, three, four, five, or more levels deep.
3. However, arrays more than three levels deep are hard to manage for most people.

Example:

```php
<?php
// A two-dimensional array Sstudent-array
(
array("Iniyan", 100,96),
array("Kavin",60,59),
array("Nilani",1313,139)
);
echo $$student[0][0].": Tamil Mark: ".$student [0][1]English mark: ".$student [0][2]."<br>";


echo $$student[1][0].": Tamil Mark: ".$student [1][1].". English mark: ".$student [1][2]."<br>";


echo $$student[2][0].": Tamil Mark: ".$student [2][1]English mark: ".$student [2][2]."<br>";
?>
```

Question 4.
Explain Array concepts and their types?
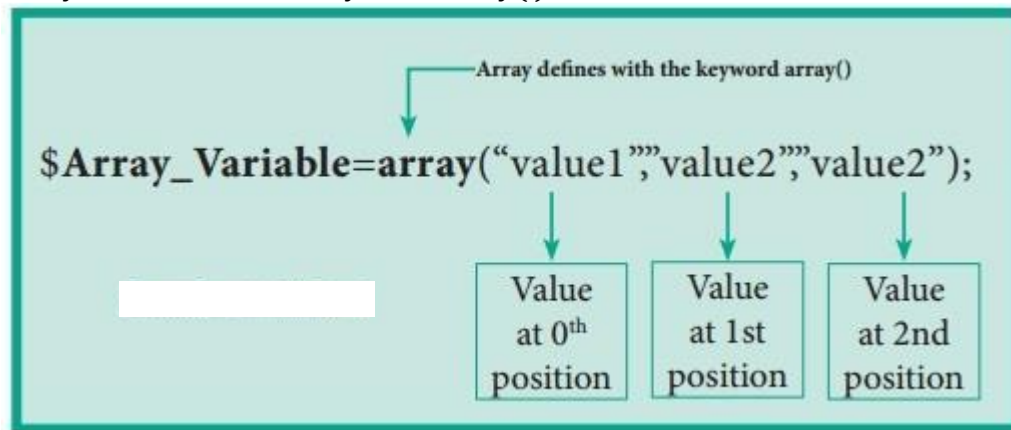**Answer:**
Arrays in PHP:
Array is a concept that stores more than one value of same data type (homogeneous) in single array variable. They are 3 types of array concepts in PHP.

1. Indexed Arrays,
2. Associative Array and
3. Multi-Dimensional Array.

SYNTAX:
Array Syntax:

Array defines with the keyword array( )

1. Indexed Arrays:
Arrays with numeric index for the available values in array variable which contains key value pair as user / developer can take the values using keys.

2. Associative Arrays:

1. Associative arrays are a key-value pair data structure.
2. Instead of having storing data in a linear array, with associative arrays you can store your data in a collection and assign it a unique key which you may use for referencing your data.

Question 3.
Multidimensional Arrays?
Answer:

1. A multidimensional array is an array containing one or more arrays. .
2. PHP understands multidimensional arrays that are two, three, four, five, or more levels deep.
3. However, arrays more than three levels deep are hard to manage for most people.

Question 5.
Explain Indexed array and Associate array in PHP?
Answer:
Indexed Arrays:
Arrays with numeric index for the available values in array variable which contains key value pair as user / developer can take the values using keys.
Example:
<?php
$teacher_name=array("Iniyan", "Kavin", "Nilani");
echo "The students name are " . $teacher_name[0]. ", " . $$teacher_name[l]. " and" .

$teacher_name[2].
?>

Associative Arrays:

      1. Associative arrays are a key-value pair data structure.
      2. Instead of having storing data in a, linear array, with associative arrays you
         can store your data.

Example:
```php
<?php
$Marks=array("Studentl"=>"35","Student2"==>"17","Student3"=>"43");
echo "Studentl mark is" . $Marks['Studentl']. " is eligible for qualification";
echo "Student2 mark is" . $Marks['Student2']. " is not eligible for qualification";
```