1. Describe what the stripos( ) function does and show a syntax example.

*The stripos() function takes a string as its first parameter and searches the string for any values contained in an array passed to the second parameter and returns a boolean. For example:*

If(stripos($untrustedUserInput, $harmfulValuesArray) == true) { return ' '; }

1. Describe what the str\_replace( ) function does and show a syntax example.

*The str\_replace() function takes the variable passed in as its third parameter and searches it for any values passed to its first parameter and replaces them with the value of the second. For example:*

$removeExtraLines = str\_replace([“\r”, “\n”], ‘ ’, $multiLineInput);

1. Describe what the array\_map( ) function does and show a syntax example.

*The array\_map() function takes an array as its second parameter and calls a function, passed as its first parameter, on each element in the array. For example:*

$cartTotal = array\_map(‘applyTaxandDiscounts’, $cartItemValues);

1. Describe what the htmlspecialchars( ) function does and show a syntax example.

*The htmlspecialchars() function searches any string given to it and converts any characters that would normally render HTML and converts them into a their HTML entities so that they are rendered as characters, rather than interpreted by the browser as actual HTML. For example, the code below would render $userSharedHtml in the browser exactly as shown between the single quotes:*

*$userSharedHtml = '<p class=”shared-html”>This is a paragraph tag.<p>';*

*$inputToShowWithHtmlTags = htmlspecialchars($userSharedHtml);*

1. Describe what the htmlentities( ) function does and show a syntax example.

*The htmlentities() function operates very much like the htmlspecialchars() function in that it converts characters to be rendered rather than interpreted by the browser except it goes a step further and processes all special characters. For example:*

$textWithSpecialCharacters = “ ® & © 2022 Big Company”;

$htmlSafeText = htmlentities($textWithSpecialCharacters);

1. Describe what the strip\_tags( ) function does and show a syntax example.

*The strip\_tags() function removes all characters that HTML and PHP would interpret as code to be evaluated, rather than rendered directly as a string, such as “<” and “$”. For example:*

$textOnlyString = strip\_tags($userProvidedHtml);

1. What is typecasting? How do you typecast a variable in PHP?

*Typecasting forces a variable to be of a certain data type, regardless of the variable’s initial type. A variable can be typecast in PHP by proceeding the variable with the desired type in parentheses.*

1. What is the Fileinfo extension? How is it used?

*The Fileinfo extension determines**a file’s MIME type and encoding. By passing the FILEINFO\_MIME\_TYPE constant to the finfo\_open() function the files bytes will be scanned for encoded markers which reveal which type of file is being read.*

1. What is the most important function in the Filter extension? How is it used?

*The most important function in the filter extension is filter\_var(). It is used by first passing the data that needs to be validated or sanitized to the first parameter, and then specifying the type of filter to be used by passing one of several filter type constants to the second parameter.*

1. What is the syntax for using prepared statements?

*A prepared statement is used by first binding a SQL query to a variable, with question marks as placeholders for dynamic values. Next, the statement is prepared by binding the results of the mysqli\_prepare() function with the database credentials and desired query as parameters to a variable. Finally, that variable, along with a value type parameter and variables for each of the queries dynamic values are passed to the mysqli\_stmt\_bind\_param() function to be executed.*