1. What is a regular expression and how is it used in PHP?

Ans/ A regular expression is a sequence of characters that forms a search pattern, used for matching and manipulating strings. In PHP, regular expressions are utilized with functions like preg_match, preg_match_all, and preg_replace to perform tasks such as validating input, searching for patterns and replacing text.

2. What are some of the most used regular expression functions in

PHP, and what do they do?

Ans/ Some of the most commonly used regular expression functions in PHP are:

preg_match(): Searches for a pattern match in each string. Returns 1 if a match is found, 0 otherwise.

preg_match_all(): Searches for all pattern matches in each string. Returns the number of matches found.

preg_replace(): Replaces all occurrences of a pattern with a specified replacement string.

preg_split(): Splits a string into an array by a regular expression pattern.

preg_grep(): Returns an array consisting of elements that match the pattern.

preg_quote(): Escapes special characters in a string that is to be used in a regular expression.

These functions are integral for pattern searching, matching, and manipulation within strings in PHP.

3. What is the difference between the preg_match() and preg_match_all()

functions?

Ans/ The difference between preg_match() and preg_match_all() in PHP is that preg_match() stops searching after finding the first match, while preg_match_all() continues to search the entire string and finds all matches.

4. How do you use regular expressions to search and replace text in PHP? Give

a code examples.

Ans/

```php
<?php
$text = 'The quick brown fox';
```

```php
$pattern = '/quick/';
$replacement = 'slow';
$replacedText = preg_replace($pattern, $replacement, $text);
echo $replacedText;
?>
```