

Improvement Test – November. 2017

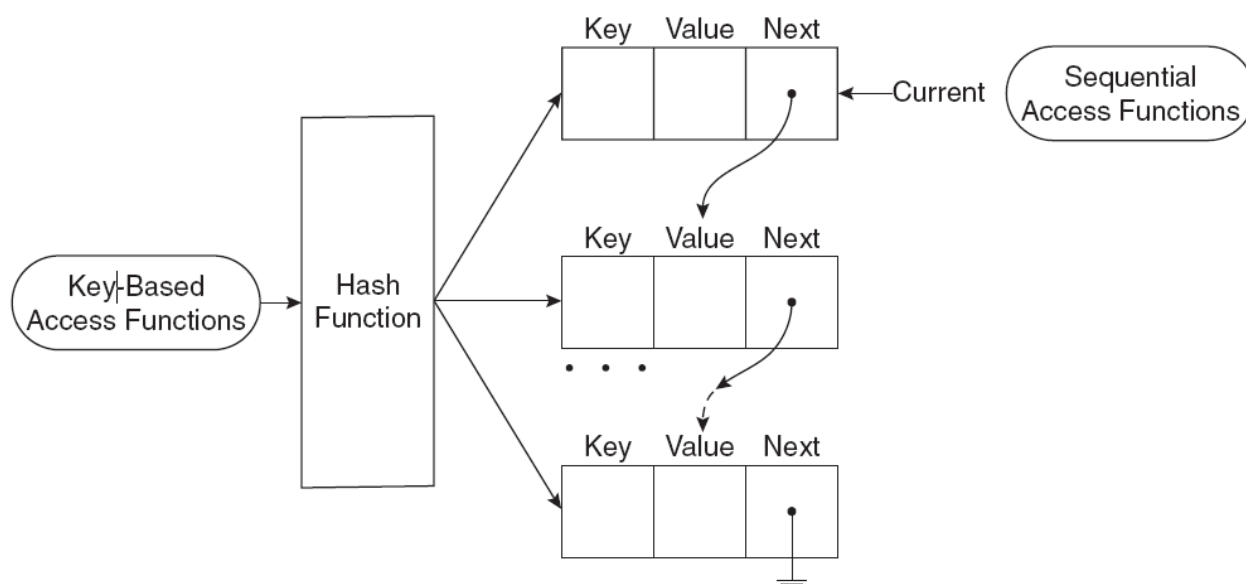
Scheme and Solution

Sub: Programming the Web							Code: 10CS73
Date: 21/ 11/2017	Duration: 90 mins	Max Marks: 50	Sem: VII	Branch: ISE			

Note: Answer any five questions:

1. Describe logical internal structure of arrays in PHP with a diagram. Explain array functions in PHP

10 M



PHP maintains a marker in each array, called the current pointer

- Several functions in PHP manipulate the current pointer
- The pointer starts at the first element when the array is created

The next function moves the pointer to the next element and returns the value there

- The each function move the pointer to the next element and returns the key/value pair at the previous position
 - The key and value can be accessed using the keys “key” and “value” on the key/value pair
- Both functions return false if no more elements are available
- prev moves the pointer back towards the beginning of the array
- reset moves the pointer to the beginning of the array
- PHP provides the array_push function that appends its arguments to a given array
- The function array_pop removes the last element of a given array and returns it
- The unset function can be used to remove an array or an element of an array

	<ul style="list-style-type: none"> • The <code>array_keys</code> function returns a list of the keys of an array • The <code>array_values</code> returns a list of values in an array • The <code>array_key_exists</code> function returns true if a given key is actually present in a given array • <code>is_array</code> determines if its argument is an array • <code>implode</code> converts an array of strings to a single string, separating the parts with a specified string • <code>explode</code> converts a string into a list of strings by separating the string at specified characters 	
2.	<p>Briefly explain Functions in PHP .Write an XHTML/PHP script to print the Square root, Square, Cube and Quadruple of numbers from 1 to 10 using loops.</p> <p>Functions in PHP Function syntax function <i>name</i>(<i>[parameters]</i>) { ... }</p> <ul style="list-style-type: none"> • The parameters are optional, but not the parentheses • Function names are not case sensitive • A return statement causes the function to immediately terminate and return a value, if any, provided in the return • A function that reaches the end of the body without executing a return, returns no value <p>XHTML/PHP script to print the Square root, Square, Cube and Quadruple of numbers from 1 to 10 using loops.</p>	[3+7]M

```

<html xmlns = "http://www.w3.org/1999/xhtml">
  <head> <title> powers.php </title>
  </head>
  <body>
    <table border = "border">
      <caption> Powers table </caption>
      <tr>
        <th> Number </th>
        <th> Square Root </th>
        <th> Square </th>
        <th> Cube </th>
        <th> Quad </th>
      </tr>
      <?php
        for ($number = 1; $number <=10; $number++) {
          $root = sqrt($number);
          $square = pow($number, 2);
          $cube = pow($number, 3);
          $quad = pow($number, 4);
          print("<tr align = 'center'> <td> $number </td>");
          print("<td> $root </td> <td> $square </td>");
          print("<td> $cube </td> <td> $quad </td> </tr>");
        }
      ?>
    </table>
  </body>
</html>

```

3. Write XHTML and JavaScript script which has five buttons labeled five different colors. The event handler for these buttons must produce a message starting from the chosen favorite color. The event handler must be implemented as a function, whose name must be assigned to the onclick attribute of the radio button element. The chosen color must be sent to the event handler as a parameter, use an onclick event to trigger a call to alert, which should display brief description of the selected color.
- ```

<?xml version = "1.0" encoding = "utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<!-- e51.html A solution to ExercCSE 5.1 - events with radio buttons --> <html xmlns =
"http://www.w3.org/1999/xhtml">
<head>
<title> ExercCSE 5.1 </title>
<script type = "text/javascript" src = "e51.js" >
</script>
</head>
<body>
<h4> Choose your favorite color </h4>
<form>
<label>
<input type = "radio" name = "colorButton" value = "red" onClick = "colorChoice('red')" /> Red
</label>

<label>
<input type = "radio" name = "colorButton" value = "blue" onClick = "colorChoice('blue')" /> Blue

```

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```

</label>

 <label>
<input type = "radio" name = "colorButton" value = "green" onClick = "colorChoice('green')" />
Green
</label>

<label>
<input type = "radio" name = "colorButton" value = "yellow" onClick = "colorChoice('yellow')" />
Yellow
</label>

<label>
<input type = "radio" name = "colorButton" value = "orange" onClick = "colorChoice('orange')" />
Orange
</label>
</form>
</body>
</html>
// e51.js - The JavaScript solution for ExercCSE 5.1 // // The event handler function to produce an alert
message about the chosen color
function colorChoice (color)
{ switch (color) { case "red": alert("Your favorite color is red"); break; case "blue": alert("Your favorite
color is blue");
break;
case "green": alert("Your favorite color is green"); break;
case "yellow": alert("Your favorite color is yellow"); break;
case "orange": alert("Your favorite color is orange"); break;
default: alert("Error in JavaScript function colorChoice"); break; }
}

```

4. a) Explain CGI Linkage in client server application.

- There are several common ways a web server can use to determine if a web request should cause a CGI program to execute
- Usually, the determination is based on the target of the request
  - Certain directories can be designated as containing CGI programs
    - Often cgi-bin is used
  - Certain file extensions can be designated as signifying a CGI program
    - .pl usually identifies a Perl script
- A request for a CGI program to executed can be made with a simple link (<a> tag in HTML)
  - This method is limited
  - Any data sent must be hard-coded into the link
- The usual way for invoking CGI programs is through the action attribute of a form
  - Data from the form is then encoded and sent with the request
- The CGI program generally creates the response by sending output to the standard output stream
  - Using print in Perl
- The CGI program will usually have to provide the content-type header
  - Content-type: text/html
  - This will be the last line of the response headers and must be followed by a blank line
- The rest of the response is created by printing the HTML code desired to standard output

[5+5]

b) Explain any five CGI pm functions.

The Perl module CGI.pm provides numerous functions

1) print br;

puts the tag <br/> into the response

2) print h1("A Header")

puts

```
<h1>A Header</h1>
```

into the response

3) print textarea(-name => "Description", -rows => "2", -cols => "35");

produces this in the response

```
<textarea name="Description" rows="2" cols="35">
```

```
</textarea>
```

4) print a({-href => "fruit.html"},

Press here for fruit descriptions");

produces this in the response

```
 Press here for fruit descriptions
```

5) The head shortcut function provides a standard header

6) The start\_html function provides the beginning part of an HTML document, through the <body> start tag

5) How database is accessed using PHP and MySQL. Explain with sample program.

### Connecting to MySQL

- The mysql\_connect function
  - First parameter is MySQL server host
  - Second parameter is the MySQL username
  - Third parameter is the password
  - Returns false if it fails
- The mysql\_close function
- Selecting a database with mysql\_select

### Requesting MySQL Operations

- The mysql\_query function
  - Takes a string parameter with an SQL query
  - Returns a result object
- Functions that apply to the result object
  - mysql\_num\_rows returns number of rows in result
  - mysql\_num\_fields returns the number of fields (columns) in the result
  - mysql\_fetch\_array returns an array with the next row of results
- Each array with a row from the result contains each field value indexed by position and by column name
  - The array\_values applied to this array has each value twice, once for each possible index

```
<?php
```

```
$self = $_SERVER['PHP_SELF'];
```

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```

$dbh=mysql_connect("localhost", "root", "")or die(mysql_error());
mysql_select_db('contactDB') or die(mysql_error());
if(isset($_POST['submit'])){
$name = $_POST['name'];
$ad1 = $_POST['add1'];
$ad2 = $_POST['add2'];
$eml = $_POST['email'];
if($name != "" && $ad1 != "")
{
$query = "INSERT INTO contact VALUES
('$name', '$ad1', '$ad2', '$eml)";
$result = mysql_query($query) or die(mysql_error());
header("Location: /menu.html");
die();
}
else
echo "<p>One of the required fields is empty!";
}
?>

```

- 6) a) Explain session tracking in web applications.
- Some applications need to keep track of a session
  - Sessions are represented internally in PHP with a session id
    - A session consists of key/value pairs
  - A session can be initialized or retrieved by using the session\_start function
    - This function retrieves \$\_SESSION, an array containing the key/value pairs for each cookie in the current request
- b) List out the file functions in PHP .
- The PHP function fopen is used to create a file handle for accessing a file given by name  
A second argument to fopen gives the mode of access  
The fopen function returns a file handle
  - The file\_exists function tests if a file, given by name, exists
  - The function fclose closes a file handle
  - The fread function reads a given number of bytes from a file given by a file handle
  - The file function returns an array of lines from a file named as a parameter
  - The file\_get\_contents method returns the content of a named file as a single string
  - The fgetc function returns a single character
  - The feof function returns TRUE if the last character read was the end of file marker, that is, the read was past the end of the file
  - If a file handle is open to for writing or appending, then the fwrite function can be used to write bytes to the file
  - The file\_put\_contents function writes a given string parameter to a named file, not a file handle

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