



MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION
(Autonomous)
(ISO/IEC - 27001 - 2005 Certified)

SUMMER – 2022 EXAMINATION
MODEL ANSWER

Subject: Web based Application Development using PHP

Subject Code: 22619

Important Instructions to examiners:

- 1) The answers should be examined by key words and not as word-to-word as given in the model answer scheme.
- 2) The model answer and the answer written by candidate may vary but the examiner may try to assess the understanding level of the candidate.
- 3) The language errors such as grammatical, spelling errors should not be given more Importance (Not applicable for subject English and Communication Skills).
- 4) While assessing figures, examiner may give credit for principal components indicated in the figure. The figures drawn by candidate and model answer may vary. The examiner may give credit for any equivalent figure drawn.
- 5) Credits may be given step wise for numerical problems. In some cases, the assumed constant values may vary and there may be some difference in the candidate's answers and model answer.
- 6) In case of some questions credit may be given by judgement on part of examiner of relevant answer based on candidate's understanding.
- 7) For programming language papers, credit may be given to any other program based on equivalent concept.
- 8) As per the policy decision of Maharashtra State Government, teaching in English/Marathi and Bilingual (English + Marathi) medium is introduced at first year of AICTE diploma Programme from academic year 2021-2022. Hence if the students in first year (first and second semesters) write answers in Marathi or bilingual language (English +Marathi), the Examiner shall consider the same and assess the answer based on matching of concepts with model answer.

Q.No	Sub Q.N.	Answer	Marking Scheme
1.	a) Ans.	Attempt any <u>FIVE</u> of the following: Describe advantages of PHP. <ul style="list-style-type: none">• Easy to Learn• Familiarity with Syntax• PHP is an open-source web development language, it's completely free of cost.• PHP is one of the best user-friendly programming languages in the industry.• PHP supports all of the leading databases, including MySQL, ODBC, SQLite and more• effective and efficient programming language• Platform Independent• PHP uses its own memory space, so the workload of the server and loading time will reduce automatically, which results into the faster processing speed.	10 2M <i>½ M each, any four advantages</i>



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		<ul style="list-style-type: none">• PHP is one of the most secure ways of developing websites and dynamic web applications. PHP has multiple layers of security to prevent threats and malicious attacks.	
	b) Ans.	<p>What is array? How to store data in array?</p> <p>1. An array in PHP is an ordered map where a map is a type that associates values to keys.</p> <p>2. Ways to store an array.</p> <p>Using array variable</p> <pre><?php \$array_fruits= array('Apple', 'Orange', 'Watermelon', 'Mango'); ?></pre> <p style="text-align: center;">OR</p> <p>Using array indices</p> <pre><?php \$array= []; // initializing an array \$array[] = 'Apple'; \$array[] = 'Orange'; \$array[] = 'Watermelon'; \$array[] = 'Mango'; print_r(\$array); ?></pre>	<p style="text-align: center;">2M</p> <p style="text-align: center;"><i>1M for definition 1M to store data</i></p>
	c) Ans.	<p>List types of inheritance.</p> <ol style="list-style-type: none">1. Single Level Inheritance2. Multiple Inheritance3. Multiple Inheritance (Interfaces)4. Hierarchical Inheritance	<p style="text-align: center;">2M</p> <p style="text-align: center;"><i>2M for any four correct names of inheritance</i></p>
	d) Ans.	<p>How can we destroy cookies?</p> <p>We can destroy the cookie just by updating the expire-time value of the cookie by setting it to a past time using the setcookie() function.</p> <p>Syntax: setcookie(name, time() - 3600);</p>	<p style="text-align: center;">2M</p> <p style="text-align: center;"><i>1M for explanation 1M for syntax/ example</i></p>
	e)	<p>List any four data types in MYSQL</p>	<p style="text-align: center;">2M</p>



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Ans.	(Any correct data types can also be considered)			2M for any four correct types
	Data Type	Size	Description	
	CHAR(size)	Maximum 255 characters	Fixed-length Character strings.	
	VARCHAR (size)	Maximum 255 characters	Variable length string	
	TEXT(size)	Maximum size of 65,535 characters.	Here size is the number of characters to store.	
	INT(m)/ INTEGER(m)	Signed values range from - 2147483648 to 2147483647. Unsigned values range from 0 to 4294967295. (4 bytes)	Standard integer value.	
	DATE()	(3 bytes) Displayed as 'yyyy-mm-dd'.	Displayed as 'yyyy-mm-dd'	
	DATETIME()	Values range from '1000-01-01 00:00:00' to '9999-12-31 23:59:59'.	(8 bytes) Displayed as 'yyyy-mm-ddhh:mm:ss'.	
f) Ans.	Write syntax of PHP. A PHP script starts with the tag <?php and end with tag ?>. The PHP delimiter in the following example simply tells the PHP engine to treat the enclosed code block as PHP code, rather than simple HTML Syntax: <?php echo 'Hello World'; ?>			2M 2M for correct syntax
g) Ans.	How to create session variable in PHP? <ul style="list-style-type: none">Session variable can be set with a help of a PHP global variable: \$_SESSION.Data in the session is stored in the form of keys and values pair.We can store any type of data on the server, which include arrays and objects.For example, we want to store username in the session so it can be assessed whenever it is required throughout the session.			2M 1M for explanation 1M for correct syntax / example



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		<pre><?php session_start(); \$_SESSION["username"] = "abc"; ?></pre>	
2.	a) Ans.	<p>Attempt any <u>THREE</u> of the following:</p> <p>Write down rules for declaring PHP variable</p> <ul style="list-style-type: none">a. A variable starts with the \$ sign, followed by the name of the variable.b. A variable name must start with a letter or the underscore character.c. A variable name should not contain spaces. If a variable name is more than one word, it should be separated with an underscore (\$first_name), or with capitalisation (\$firstName).d. Variables used before they are assigned have default values.e. A variable name cannot start with a number.f. A variable name can only contain alpha-numeric characters (A-Z, a-z) and underscores.g. Variable names are case-sensitive (\$name and \$NAME are two different variables)h. Variables can, but do not need, to be declared before assignment. PHP automatically converts the variable to the correct data type, depending on its value.i. Variables in PHP do not have intrinsic types - a variable does not know in advance whether it will be used to store a number or a string of characters	<p>12 4M <i>1M for each correct rule, any four rules can be considered</i></p>
	b) Ans.	<p>Write a program to create associative array in PHP.</p> <pre><?php \$a = array("sub1"=>23,"sub2"=>23,"sub3"=>12,"sub4"=>13); var_dump(\$a); echo "
"; foreach (\$a as \$x) echo "\$x
"; echo "using for loop
"; \$aLength= count(\$a); echo "Count of elements=\$aLength
"; for (\$i=0;\$i<\$aLength;\$i++) echo "\$a[\$i]
"; echo "array function extract
"; extract(\$a);</pre>	<p>4M <i>4M for any correct code for associative array</i></p>



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		echo \$a1." ".\$a2." ".\$a3." ".\$a4." "; ?>																					
	<div>c) Ans.</div>	<div>Define Introspection and explain it with suitable example.</div> <div><ul style="list-style-type: none">Introspection in PHP offers the useful ability to examine an object's characteristics, such as its name, parent class (if any) properties, classes, interfaces and methods.PHP offers a large number functions that can be used to accomplish the above task.Following are the functions to extract basic information about classes such as their name, the name of their parent class etc.</div> <div><table><tr><th>Function</th><th>Description</th></tr><tr><td>class_exists()</td><td>Checks whether a class has been defined.</td></tr><tr><td>get_class()</td><td>Returns the class name of an object.</td></tr><tr><td>get_parent_class()</td><td>Returns the class name of an object's parent class.</td></tr><tr><td>is_subclass_of()</td><td>Checks whether an object has a given parent class.</td></tr><tr><td>get_declared_classes()</td><td>Returns a list of all declared classes.</td></tr><tr><td>get_class_methods()</td><td>Returns the names of the class' methods.</td></tr><tr><td>get_class_vars()</td><td>Returns the default properties of a class.</td></tr><tr><td>interface_exists()</td><td>Checks whether the interface is defined.</td></tr><tr><td>method_exists()</td><td>Checks whether an object defines a method.</td></tr></table></div> <div><div>Example:</div><div><?php class Test { function testing_one() { return(true); } function testing_two() { return(true); } function testing_three()</div></div>	Function	Description	class_exists()	Checks whether a class has been defined.	get_class()	Returns the class name of an object.	get_parent_class()	Returns the class name of an object's parent class.	is_subclass_of()	Checks whether an object has a given parent class.	get_declared_classes()	Returns a list of all declared classes.	get_class_methods()	Returns the names of the class' methods.	get_class_vars()	Returns the default properties of a class.	interface_exists()	Checks whether the interface is defined.	method_exists()	Checks whether an object defines a method.	<div>4M</div> <div>1M for definition</div> <div>1M for explanation</div> <div>2M for any correct example</div>
Function	Description																						
class_exists()	Checks whether a class has been defined.																						
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	<pre>{ return(true); } //Class "Test" exist or not if (class_exists('Test')) { \$t = new Test(); echo "The class is exist.
"; } else { echo "Class does not exist.
"; } //Access name of the class \$p= new Test(); echo "Its class name is " ,get_class(\$p) , "
"; //Access name of the methods/functions \$method = get_class_methods(new Test()); echo "List of Methods:
"; foreach (\$method as \$method_name) { echo "\$method_name
"; } ?></pre> <p>Output : The class is exist. Its class name is Test List of Methods: testing_one testing_two testing_three</p>					
<p>d)</p> <p>Ans.</p>	<p>Write difference between get() and post() method of form (Any four points)</p> <table><tr><th>HTTP GET</th><th>HTTP POST</th></tr><tr><td>In GET method we cannot send large amount of data rather limited data is sent because the request parameter is appended into the URL.</td><td>In POST method large amount of data can be sent because the request parameter is appended into the body.</td></tr></table>	HTTP GET	HTTP POST	In GET method we cannot send large amount of data rather limited data is sent because the request parameter is appended into the URL.	In POST method large amount of data can be sent because the request parameter is appended into the body.	<p>4M</p> <p><i>1M for each correct differentiation, any four points</i></p>
HTTP GET	HTTP POST					
In GET method we cannot send large amount of data rather limited data is sent because the request parameter is appended into the URL.	In POST method large amount of data can be sent because the request parameter is appended into the body.					



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		<p>GET request is comparatively better than Post so it is used more than the Post request.</p> <p>GET request is comparatively less secure because the data is exposed in the URL bar.</p> <p>Request made through GET method are stored in Browser history.</p> <p>GET method request can be saved as bookmark in browser.</p> <p>Request made through GET method are stored in cache memory of Browser.</p> <p>Data passed through GET method can be easily stolen by attackers.</p> <p>In GET method only ASCII characters are allowed.</p>	<p>POST request is comparatively less better than Get so it is used less than the Get request.</p> <p>POST request is comparatively more secure because the data is not exposed in the URL bar.</p> <p>Request made through POST method is not stored in Browser history.</p> <p>POST method request cannot be saved as bookmark in browser.</p> <p>Request made through POST method are not stored in cache memory of Browser.</p> <p>Data passed through POST method cannot be easily stolen by attackers.</p> <p>In POST method all types of data is allowed.</p>	<i>to be considered</i>
3.	<p>a)</p> <p>Ans.</p>	<p>Attempt any <u>THREE</u> of the following:</p> <p>Define function. How to define user defined function in PHP? Give example.</p> <p>Definition: -A function is a block of code written in a program to perform some specific task. They take information as parameters, execute a block of statements or perform operations on these parameters and return the result. A function will be executed by a call to the function.</p> <p>Define User Defined Function in PHP: A user-defined function declaration starts with the keyword function.</p> <p>Syntax</p> <pre>function functionName() { code to be executed;</pre>		<p>12</p> <p>4M</p> <p><i>1M for definition</i></p> <p><i>1M for syntax</i></p> <p><i>2M for any relevant example</i></p>



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	<pre>} Example <?php function writeMsg() { echo "Welcome to PHP world!"; } writeMsg(); // call the function ?></pre> <p>(Any other example can be considered)</p>	
b) Ans.	<p>Explain method overloading with example.</p> <p>Function overloading or method overloading is the ability to create multiple functions of the same name with different implementations depending on the type of their arguments.</p> <p>In PHP overloading means the behavior of a method changes dynamically according to the input parameter.</p> <p>__call() is triggered when invoking inaccessible methods in an object context.</p> <p>__callStatic() is triggered when invoking inaccessible methods in a static context.</p> <p>__call():</p> <p>If a class execute __call(), then if an object of that class is called with a method that doesn't exist then __call() is called instead of that method.</p> <p>example:-</p> <pre><?php // PHP program to explain function // overloading in PHP // Creating a class of type shape class shape { // __call is magic function which accepts // function name and arguments function __call(\$name_of_function, \$arguments) { // It will match the function name if(\$name_of_function == 'area') { switch (count(\$arguments)) { // If there is only one argument</pre>	<p>4M</p> <p>2M for explanation n 2M for example</p>



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		<pre>// area of circle case 1: return 3.14 * \$arguments[0]; // IF two arguments then area is rectangle; case 2: return \$arguments[0]*\$arguments[1]; } } } }</pre> <p>// Declaring a shape type object \$s = new Shape;</p> <p>// Function call echo(\$s->area(2)); echo "
";</p> <p>// calling area method for rectangle echo (\$s->area(4, 2)); ?></p> <p>Output: 9.426 48</p> <p>Here the area() method is created dynamically and executed with the help of magic method __call() and its behavior changes according to the pass of parameters as object. (Any other example can be considered)</p>	
	<p>c) Ans.</p>	<p>Define session and cookie. Explain use of session start.</p> <p>Session</p> <p>Session is a way to store information to be used across multiple pages, and session stores the variables until the browser is closed. To start a session, the session_start() function is used and to destroy a session, the session_unset() and the session_destroy() functions are used.</p> <p>The session variables of a session can be accessed by using the \$_SESSION super-global variable.</p>	<p>4M 1M for each definition 2M for use of session start</p>



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	<p>Cookie Cookie is a small piece of information stored as a file in the user's browser by the web server. A cookie stores some data temporarily (until the expiration date has passed). There is no Unique ID allocated for a Cookie. The cookie data can be accessed using the \$_COOKIE super-global variable. A cookie can be set using the setcookie() function.</p> <p>Use of Session start PHP session_start() function is used to start the session. It starts a new or resumes an existing session. It returns an existing session if the session is created already. If a session is not available, it creates and returns a new session. session_start() creates a session or resumes the current one based on a session identifier passed via a GET or POST request, or passed via a cookie.</p> <p>Example optional:- <?php session_start(); ?> <html> <body> <?php \$_SESSION["uname"]="Customer1"; \$_SESSION["fcolor"]="RED"; echo "The session variable are set with values"; ?> </body> </html></p>	
<p>d) Ans.</p>	<p>Explain delete operation of PHP on table data. Delete command is used to delete rows that are no longer required from the database tables. It deletes the whole row from the table.</p> <p>The DELETE statement is used to delete records from a table: DELETE FROM table_name WHERE some_column = some_value</p>	<p>4M 2M for explanation n 2M for program / Example</p>



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[WHERE condition] is optional. The WHERE clause specifies which record or records that should be deleted. If the WHERE clause is not used, all records will be deleted.

Below is a simple example to delete records into the student.pridata table. To delete a record in any table it is required to locate that record by using a conditional clause. Below example uses name to match a record in student.pridata table.

Example:-

Assume Following Table

Database Name-student

Table name - pridata

name	age	gender	email	phone
amit	22	male	samplemail171019@gmail.com	2147483647
Raj	25	male	raj@gmail.com	1234567891
Swapna	36	female	swapna@gmail.com	2147483647

```
<?php
    $server='localhost';
    $username='root';
    $password="";
    $con=mysqli_connect($server,$username,$password);
    if(!$con){
        die("Connection to this database failed due to"
        .mysqli_connect_error($mysqli));
    }
    $sql="DELETE FROM student.pridataWHERE name='amit'";
    if($con->query($sql)==true){
        echo "Record deleted successfully";
    }
    else{
        "ERROR:error".$con->error();
    }
    $con->close();
?>
```

Output:-

Record deleted sucessfully



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		<table><tr><th colspan="5">Table after Deletion</th></tr><tr><th>name</th><th>age</th><th>gender</th><th>email</th><th>phone</th></tr><tr><td>Raj</td><td>25</td><td>male</td><td>raj@gmail.com</td><td>1234567891</td></tr><tr><td>Swapna</td><td>36</td><td>female</td><td>swapna@gmail.com</td><td>2147483647</td></tr></table> <p>(Any other example can be considered)</p>	Table after Deletion					name	age	gender	email	phone	Raj	25	male	raj@gmail.com	1234567891	Swapna	36	female	swapna@gmail.com	2147483647	
Table after Deletion																							
name	age	gender	email	phone																			
Raj	25	male	raj@gmail.com	1234567891																			
Swapna	36	female	swapna@gmail.com	2147483647																			
4.	<p>a)</p> <p>Ans.</p>	<p>Attempt any THREE of the following:</p> <p>Write PHP script to sort any five numbers using array function.</p> <pre><?php \$a = array(1, 8, 9, 4, 5); sort(\$a); foreach(\$a as \$i) { echo \$i.' '; } ?></pre> <p>OR</p> <pre><!DOCTYPE html> <html> <body> <H1>Enter five numbers </H1> <form action = 'sort.php' method = 'post'> <input type = 'number' name = 'n1' placeholder = 'Number 1...'>

 <input type = 'number' name = 'n2' placeholder = 'Number 2...'>

 <input type = 'number' name = 'n3' placeholder = 'Number 3...'>

 <input type = 'number' name = 'n4' placeholder = 'Number 4...'>

 <input type = 'number' name = 'n5' placeholder = 'Number 5...'>

 <input type = 'submit' value = 'Submit'> </form> </body> </html></pre>	<p>12</p> <p>4M</p> <p>4M for correct and equivalent code</p>																				



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		<pre>sort.php <?php if(\$_SERVER['REQUEST_METHOD'] == 'POST') { \$a = array(\$_POST['n1'], \$_POST['n2'], \$_POST['n3'], \$_POST['n4'], \$_POST['n5']); sort(\$a); } foreach(\$a as \$i) { echo \$i.' '; } ?></pre> <p>(Any other example can be considered)</p>	
	<p>b) Ans.</p>	<p>Write PHP program for cloning of an object (Any other correct program can be considered)</p> <p>Code:-</p> <pre><!DOCTYPE html> <html> <body> <?php class car { public \$color; public \$price; function __construct() { \$this->color = 'red'; \$this->price = 200000; } } \$mycar = new car(); \$mycar->color = 'blue'; \$mycar->price = 500000; \$newcar = clone \$mycar; print_r(\$newcar); ?> </body> </html></pre>	<p>4M 4M for correct program</p>



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		Explanation The above code creates a car with a constructor which initializes its member variable named color and price. An object of the variable is created, and it is cloned to demonstrate deep cloning.	
	c) Ans.	Create customer form like customer name, address, mobile no, date of birth using different form of input elements & display user inserted values in new PHP form. <pre> <!DOCTYPE html> <html> <body> <form action = 'data..php' method = 'post'> <input type = 'text' name = 'name' placeholder = 'Customer Name...'>

 <input type = 'text' name = 'address' placeholder = 'Address...'>

 <input type = 'text' name = 'number' placeholder = 'Mobile Number...'>

 <label> Date of Birth: </label> <input type = 'date' name = 'dob'>

 <input type = 'submit' value = 'Submit'>
 </form> </body> </html> data.php <?php if(\$_SERVER['REQUEST_METHOD'] == 'POST') { echo '<html><body><form> Customer Name: '.\$_POST['name'].'
 Address: '.\$_POST['address'].'
 Mobile Number: '.\$_POST['number'].'
 Date of Birth: '.\$_POST['dob']; } ?> </pre> (Any other correct program logic can be considered)	4M <i>4M for correct and equivalent code</i>
	d) Ans.	Inserting and retrieving the query result operations <pre> <?php \$con = mysqli_connect('localhost', 'root', '', 'class'); </pre>	4M <i>2M for inserting</i>



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	<pre># Connecting to Database \$query = "insert into user values(1, 'Amit')"; # Inserting Values \$result = mysqli_query(\$con, \$query); if(\$result) { echo 'Insertion Successful
'; } else { echo 'Insertion Unsuccessful
'; } \$query = "select * from user"; # Retrieving Values \$result = mysqli_query(\$con, \$query); foreach(\$result as \$r) { echo \$r['roll_number'].' '.\$r['name']; } ?></pre> <p>Output Insertion Successful 1 Amit</p> <p>Explanation The above code connects with a database named 'class'. The exam database has a table named 'user' with 2 columns roll_number and name. It executes an insert query on the user and checks whether the insertion was successful or not. It executes a select query on the user and displays the information retrieved. (Any other example can be considered)</p>	<i>2M for retrieving the query result operations</i>
e) Ans.	<p>How do you validate user inputs in PHP.</p> <p>Invalid user input can make errors in processing. Therefore, validating inputs is a must.</p> <ol style="list-style-type: none">1. Required field will check whether the field is filled or not in the proper way. Most of cases we will use the * symbol for required field.2. Validation means check the input submitted by the user.	<i>4M 2M for explanatio n 2M for program</i>



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	<p>There are two types of validation available in PHP.</p> <p>Client-Side Validation – Validation is performed on the client machine web browsers.</p> <p>Server Side Validation – After submitted by data, The data is sent to a server and performs validation checks in the server machine.</p> <p>Some of Validation rules for field</p> <table><tr><th>Field</th><th>Validation Rules</th></tr><tr><td>Name</td><td>Should required letters and white-spaces</td></tr><tr><td>Email</td><td>Should be required @ and .</td></tr><tr><td>Website</td><td>Should required a valid URL</td></tr><tr><td>Radio</td><td>Must be selectable at least once</td></tr><tr><td>Check Box</td><td>Must be checkable at least once</td></tr><tr><td>Drop Down menu</td><td>Must be selectable at least once</td></tr></table> <p>The preg_match() function searches a string for pattern, returning true if the pattern exists, and false otherwise.</p> <p>To check whether an email address is well-formed is to use PHP's filter_var() function.</p> <p>empty() function will ensure that text field is not blank it is with some data, function accepts a variable as an argument and returns TRUE when the text field is submitted with empty string, zero, NULL or FALSE value.</p> <p>Is_numeric() function will ensure that data entered in a text field is a numeric value, the function accepts a variable as an argument and returns TRUE when the text field is submitted with numeric value.</p> <p>Example:-</p> <p>Validations for: - name, email, phone no, website url</p> <pre><!DOCTYPE html> <body> <?php \$nerror = \$merror = \$perror = \$werror = \$cerror = ""; \$name = \$email = \$phone = \$website = \$comment = ""; \$pattern = "^[a-z0-9-]+(\.[a-z0-9-]+)* @[a-z0-9-]+(\.[a-z0-9-]+)*(\.[a-z]{2,3})\$^";</pre>	Field	Validation Rules	Name	Should required letters and white-spaces	Email	Should be required @ and .	Website	Should required a valid URL	Radio	Must be selectable at least once	Check Box	Must be checkable at least once	Drop Down menu	Must be selectable at least once	
Field	Validation Rules															
Name	Should required letters and white-spaces															
Email	Should be required @ and .															
Website	Should required a valid URL															
Radio	Must be selectable at least once															
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Drop Down menu	Must be selectable at least once															



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	<pre>if(\$_SERVER["REQUEST_METHOD"]=="POST") { if(empty(\$_POST["name"])) { \$nerror = "Name cannot be empty!"; } else { \$name = test_input(\$_POST["name"]); if(!preg_match("/^[a-zA-Z-']*\$/",\$name)) { \$nerror = "Only characters and white spaces allowed"; } } if(empty(\$_POST["email"])) { \$merror = "Email cannot be empty!"; } else { \$email = test_input(\$_POST["email"]); if(!preg_match(\$pattern, \$email)) { \$merror = "Email is not valid"; } } if(empty(\$_POST["phone"])) { \$perror = "Phone no cannot be empty!"; } else { \$phone = test_input(\$_POST["phone"]); if (!preg_match ('/^([0-9]{ 10})+\$/', \$phone)) { \$perror = "Phn no is not valid"; } } if(empty(\$_POST["website"])) { \$werror = "This field cannot be empty!"; } else { \$website = test_input(\$_POST["website"]); if (!preg_match("/^b(?:(:?https? ftp):\\// www\\.)[-a-z0-9+&@#/%?~_! :,;]*[-a-z0-9+&@#/%?~_]/i",\$website)) { \$werror = "URL is not valid"; } } }</pre>	
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	<pre>} if (empty(\$_POST["comment"])) { \$cerror = ""; } else { \$comment = test_input(\$_POST["comment"]); } } function test_input(\$data) { \$data = trim(\$data); \$data = stripslashes(\$data); \$data = htmlspecialchars(\$data); return \$data; } ?> <p>* required field </p> <form method="post" action="<?php echo htmlspecialchars(\$_SERVER["PHP_SELF"]);?>"> Name: <input type="text" name="name"> * <?php echo \$nerror;?>

 E-mail: <input type="text" name="email"> * <?php echo \$merror;?>

 Phone no: <input type="text" name="phone"> * <?php echo \$perror;?>

 Website: <input type="text" name="website"> * <?php echo \$werror;?>

 Comment: <textarea name="comment" rows="5" cols="40"></textarea>

 <input type="submit" name="submit" value="Submit"></form> <?php echo "<h2>Your Input:</h2>"; echo \$name; echo "
"; echo \$email; echo "
"; echo \$phone; echo "
"; echo \$website; echo "
"; echo \$comment; ?> </body> </html></pre>	
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		(Any other correct example can be consider and consider any two user input validation)	
5.	a) Ans.	<p>Attempt any <u>TWO</u> of the following</p> <p>Explain different loops in PHP with example.</p> <p>while loop: If the expression/condition specified with while evaluates to true then the statements inside loop executes and control is transferred back to expression/condition. The process of evaluation and execution</p> <p>Example:</p> <pre><?php \$a=1; while(\$a<=5) { echo " Iteration \$a"; \$a++; } ?></pre> <p>OR</p> <p>Example:</p> <pre><?php \$a=1; while(\$a<=5): echo " Iteration \$a"; \$a++; endwhile; ?></pre> <p>do-while loop:All the statements inside the loop executes for the first time without checking any condition. The keyword ‘do’ passes the flow of control inside loop. After executing loop for the first time, expression / condition is evaluated. If it evaluates to true then all statements inside loop again executes and if it evaluates to false then loop exits and flow of control passes to the next statement placed outside the loop. The process of execution and evaluation continues till expression / condition evaluates to true.</p> <p>Example:</p> <pre><?php \$a=1;</pre>	<p style="text-align: center;">12 6M <i>1M for explanatio n and 1M for example of each</i></p> <p style="text-align: center;"><i>Any three can be considered</i></p>



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	<pre>do { print("Iteration 1"); \$a++; }while(\$a<=0); ?></pre> <p>for loop: It is used to execute same set of statements multiple times. In for loop variable initialization, condition and increment / decrement is placed in a single statement. Before starting first iteration a variable is initialized to specified value. Then condition is checked. If condition is true then statements inside the loop executes and variable is incremented or decremented. Control then passes to condition. If condition is false then control passes to the statement placed outside the loop. The process of condition checking, loop statement execution and increment /decrement continues till condition is true.</p> <p>Example :</p> <pre><?php for (\$a=1;\$a<=5;\$a++) { echo("Iteration \$a"); } ?></pre> <p>for each loop: This loop works with arrays and is used to traverse through values in an array. For each loop iteration, the value of the current array element is assigned to \$value and the array pointer is moved by one, until it reaches the last array element.</p> <p>Example :</p> <pre><?php \$arr=array("Apple","Banana","Orange"); foreach(\$arr as \$fruit) { echo("\$fruit"); } ?></pre>	
b) Ans.	How do you connect MYSQL database with PHP. Using MySQLi Object Interface:	6M 3M for



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	<pre><?php \$servername = "localhost"; \$username = "root"; \$password = ""; \$conn = new mysqli(\$servername, \$username, \$password); if (\$conn->connect_error) { die("Connection failed: " . \$conn->connect_error); } echo "Connected successfully"; mysqli_close(\$conn); ?></pre> <p>Explanation: The first part of the script is three variables (server name, username, and password) and their respective values. These values should correspond to your connection details.</p> <p>Next is the main PHP function mysqli_connect(). It establishes a connection with the specified database. When the connection fails, it gives the message Connection failed. The die function prints the message and then exits out of the script</p> <p>If the connection is successful, it displays “Connected successfully.” When the script ends, the connection with the database also closes. If you want to end the code manually, use the mysqli_close function.</p> <p>OR using MySQLi Procedural interface:</p> <pre><?php \$servername = "localhost"; \$username = "username"; \$password = "password"; \$conn = mysqli_connect(\$servername, \$username, \$password); if (!\$conn) { die("Connection failed: " . mysqli_connect_error()); } \$sql = "CREATE DATABASE myDB"; if (mysqli_query(\$conn, \$sql)) {</pre>	<p style="text-align: center;"><i>Any relevant statements for connecting PHP with MySQL database</i></p> <p style="text-align: center;"><i>3M for explanation</i></p>
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	<pre>echo "Database created successfully"; } else { echo "Error creating database: " ; mysqli_error(\$conn); } mysqli_close(\$conn); ?></pre> <p>Explanation: The first part of the script is three variables (server name, username, and password) and their respective values. These values should correspond to your connection details. Next is the main PHP function mysqli_connect(). It establishes a connection with the specified database. When the connection fails, it gives the message Connection failed. The die function prints the message and then exits out of the script If the connection is successful, it displays “Connected successfully.” Next, write a sql statement to create a database. If connection established successfully then echo "Database created successfully"; else echo "Error creating database: " When the script ends, the connection with the database also closes. If you want to end the code manually, use the mysqli_close function.</p> <p>OR using PDO - PHP Data Object</p> <pre><?php \$servername = "localhost"; \$username = "username"; \$password = "password"; try { \$conn = new PDO("mysql:host=\$servername;dbname=myDB", \$username, \$password); \$conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION); echo "Connected successfully"; }</pre>	
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	<pre>catch(PDOException \$e) { echo "Connection failed: " . \$e->getMessage(); } ?></pre> <p>Explanation: The first part of the script is three variables (server name, username, and password) and their respective values. These values should correspond to your connection details. If a problem arises while trying to connect, it stops running and attempts to catch and solve the issue. <i>Catch</i> blocks can be set to show error messages or run an alternative code. Following is the setAttribute method adding two parameters to the PDO:</p> <ol style="list-style-type: none">1. PDO::ATTR_ERRMODE2. PDO::ERRMODE_EXCEPTION <p>This method instructs the PDO to run an exception in case a query fails. Add the echo “Connected successfully.” to confirm a connection is established. Define the PDOException in the catch block by instructing it to display a message when the connection fails.</p>	
c) Ans	<p>Create a class as “Percentage” with two properties length & width. Calculate area of rectangle for two objects.</p> <pre><?php class Percentage { public \$length; public \$width; public \$a; function area(\$l,\$w) { \$this->length=\$l; \$this->width=\$w; \$this->a=\$this->length*\$this->width; echo "Area of rectangle = " . \$this->a; } } \$p1=new Percentage();</pre>	6M 3M for correct syntax 3M for correct logic



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		<pre>\$p1->area(2,3); \$p2=new Percentage(); \$p2->area(5,6); ?></pre> <p>(Any other relevant logic can be considered)</p>	
6.	<p>a) Ans.</p>	<p>Attempt any <u>TWO</u> of the following:</p> <p>Write a PHP program to demonstrate use of cookies.</p> <p>Cookies can be used to identify user, managing session, etc. Setting cookies for human identification: In the code below, two fields name and year are set as cookies on user's machine. From the two fields, name field can be used to identify the user's revisit to the web site.</p> <pre><?php setcookie("name", "WBP", time()+3600, "/", "", 0); setcookie("Year", "3", time()+3600, "/", "", 0); ?></pre> <p>For the first time when user visits the web site, cookies are stored on user's machine. Next time when user visits the same page, cookies from the user's machine are retrieved. In the code below isset() function is used to check if a cookie is set or not on the user's machine.</p> <pre><html> <body> <?php if(isset(\$_COOKIE["name"])) echo "Welcome " . \$_COOKIE["name"] . " Thanks for Revisiting". "
"; else echo "First Time Visitor". "
"; ?> </body> </html></pre>	<p style="text-align: center;">12 6M <i>6M for Any PHP program with correct demonstration for use of cookies</i></p>
	<p>b) Ans.</p>	<p>Explain any four string functions in PHP with example.</p> <p>1. str_word_count() function: This function is used to count the number of words in a string.</p> <p>syntax : str_word_count(string,return,char);</p> <p>string : It indicates string to be checked.</p> <p>return :It is optional. It specifies the return value of the function.</p>	<p style="text-align: center;">6M <i>1M for explanation & 1/2 M for correct</i></p>



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	<p>0- default. Returns the number of words found. 1- returns an array with the words from the string. 2- returns an array where the key is the position of the word in the string, and value is the actual word.</p> <p>char : Optional. It specifies special characters to be considered as words.</p> <p>Example:</p> <pre><?php \$str1="Welcome to WBP Theory & practical"; echo "
 Total words in string str1=" ".str_word_count(\$str1,0,"&"); ?></pre> <p>2. strlen() function : This function is used to find number of characters in a string . While counting number characters from string, function also considers spaces between words. syntax : strlen(string); - string specify name of the string from which characters have to be counted.</p> <p>Example :</p> <pre><?php \$str3="Hello,welcome to WBP"; echo "
 Number of characters in a string '\$str3' = " .strlen(\$str3); ?></pre> <p>3. strrev() function : This function accepts string as an argument and returns a reversed copy of it. Syntax : \$strname=strrev(\$string variable/String); Example :</p> <pre><?php \$str4="Polytechnic"; \$str5=strrev(\$str4); echo "Original string is '\$str4' and reverse of it is '\$str5'"; ?></pre> <p>4. strcmp() function : This function is used to compare two strings</p>	<p><i>example of each</i></p> <p><i>Any four functions to be considered</i></p>
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	<p>with each other . It is a case sensitive comparison.</p> <p>Syntax : \$result= strcmp(string1,string2);</p> <ul style="list-style-type: none">- string1 and string2 indicates strings to be compared with each other.-This function returns 0 if both the strings are equal. It returns a value <0 if string1 is less than string2 and >0 if string 1 is greater than string2 <p>Example 1 :</p> <pre><?php \$str6="Welcome"; \$str7="Welcome"; echo strcmp(\$str7,\$str6); ?></pre> <p>5. strpos() function : This function is used to find the position of the first occurrence of specified word inside another string. It returns False if word is not present in string. It is a case sensitive function. by default, search starts with 0th position in a string.</p> <p>Syntax : strpos(String,findstring,start);</p> <ul style="list-style-type: none">- string specify string to be searched to find another word- findstring specify word to be searched in specified first parameter.- start is optional . It specifies where to start the search in a string. If start is a negative number then it counts from the end of the string. <p>Example:</p> <pre><?php \$str8="Welcome to Polytechnic"; \$result=strpos(\$str8,"Poly",0); echo \$result; ?></pre> <p>6. str_replace() function : This function is used to replace some characters with some other characters in a string.</p> <p>Syntax : str_replace(findword,replace,string,count);</p> <ul style="list-style-type: none">- Find word specify the value to find- replace specify characters to be replaced with search characters.- string specify name of the string on which find and replace has to be performed.	
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		<p>- count is optional . It indicates number of occurrences replaced from a string.</p> <p>Example 1: \$str10="Welcome to poly"; \$str11=str_replace("poly","msbte",\$str10); echo \$str11;</p> <p>7. ucwords() function: This function is used to convert first character of each word from the string into uppercase. Syntax : \$variable=ucwords(\$Stringvar); Example : <?php \$str9="welcome to poly for web based development"; echo ucwords(\$str9); ?></p> <p>8. strtoupper() function : This function is used to convert any character of string into uppercase. Syntax : \$variable=strtoupper(\$stringvar); Example: <?php \$str9="POLYtechniC"; echo strtoupper(\$str9); ?></p> <p>9. strtolower() function : This function is used to convert any character of string into lowercase. Syntax: \$variable=strtolower(\$stringvar); Example : <?php \$str9="POLYtechniC"; echo strtolower(\$str9); ?></p>	
	<p>c)</p> <p>Ans.</p>	<p>i) What is inheritance?</p> <p>ii) Write update operation on table data.</p> <p>Inheritance: It is the process of inheriting (sharing) properties and methods of base class in its child class. Inheritance provides re-</p>	<p>6M</p> <p><i>3M for explanation</i></p>



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	<p>usability of code in a program. PHP uses extends keyword to establish relationship between two classes.</p> <p>Syntax : class derived_class_name extends base_class_name</p> <pre>{ Class body }</pre> <p>- derived_class_name is the name of new class which is also known as child class.</p> <p>- base_class_name is the name of existing class which is also known as parent class.</p> <p>A derived class can access properties of base class and also can have its own properties. Properties defined as public in base class can be accessed inside as well as outside of the class but properties defined as protected in base class can be accessed only inside its derived class. Private members of class cannot be inherited.</p> <p>Example :</p> <pre><?php class college { public \$name="ABC College"; protected \$code=7; } class student extends college { public \$sname="s-xyz"; public function display() { echo "College name=" . \$this->name; echo "
College code=" . \$this->code; echo "
Student name=" . \$this->sname; } } \$s1=new student(); \$s1->display(); ?></pre> <p>ii) Any correct statements for connecting database and</p>	<p style="text-align: center;"><i>n of inheritance</i></p> <p style="text-align: center;"><i>3M for update operation</i></p>
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	<p>updating data in database table (Any data can be considered for updation) Update data :</p> <pre><?php \$servername = "localhost"; \$username = "root"; \$password = ""; \$dbname = "ifdept"; \$conn = new mysqli(\$servername, \$username, \$password, \$dbname); if (\$conn->connect_error) { die("Connection failed: " . \$conn->connect_error); } \$sql = "UPDATE student SET rollno=4 WHERE name='abc'"; if (\$conn->query(\$sql) === TRUE) { echo "Record updated successfully"; } else { echo "Error updating record: " . \$conn->error; } \$conn->close(); ?></pre>	
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