Professional Course (Even) Examination, 2025

(4th Semester)

BACHELOR OF COMPUTER APPLICATIONS

(Web Programming)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(*Marks* : 25)

SECTION—I

(*Marks* : 15)

I. Tick (✓) the correct answer in the brackets provided :   1×10=10

1. What does PHP stand for?

    (a) Hypertext Preprocessor   (   )

    (b) Preprocessed Hypertext Pages   (   )

    (c) Private Hosting Protocol   (   )

    (d) Personal Home Page   (   )

2. What will be the output of the following PHP code?
    php
```
<?php
$x = 5;
$y = "5";
if ($x === $y) {
  echo "Equal";
} else {
  echo "Not Equal";
}
?>
```

(a) Equal   (   )

(b) Not equal   (   )

(c) 5   (   )

(d) Error   (   )

3. What is the correct way to escape special character?

(a) \'   (   )

(b) /'   (   )

(c) /$ (   )

(d) \n   (   )

4. What does the *htmlspecialchars()* function do in PHP?

(a) Converts a string to uppercase   (   )

(b) Removes all special characters from a string   (   )

(c) Converts special characters to HTML entities to prevent XSS attacks   (   )

(d) Encodes a string using base64 encoding   (   )

5. Which of the following methods is used to traverse an associative array in PHP?

   (a) for loop   (   )

   (b) while loop   (   )

   (c) for each loop   (   )

   (d) do-while loop   (   )

6. What does the *get_class_methods()* function return when applied to an object in PHP?

   (a) List of all properties of the class   (   )

   (b) List of all methods of the class   (   )

   (c) Name of the class   (   )

   (d) Parent class of the object   (   )

7. Which of the following functions is used to disconnect a connection to a MySQL database in PHP?

   (a) mysqli_connect()   (   )

   (b) mysql_close()   (   )

   (c) db_connect()   (   )

   (d) connect_mysql()   (   )

8. Which SQL clause is used to sort rows by the name column in ascending order?

(a) ORDER BY name ASC;   (   )

(b) SORT BY name ASC;   (   )

(c) ARRANGE BY name ASC;   (   )

(d) FILTER BY name ASC;?   (   )

9. Which of the following SQL commands is used to update data in a table named employees to change the salary of employee with id 101 to 5000?

(a) UPDATE employees SET salary = 5000 WHERE id = 101;   (   ) .

(b) MODIFY employees SET salary = 5000 WHERE id = 101;   (   )

(c) CHANGE employees SET salary = 5000 WHERE id = 101;   (   )

(d) ALTER employees SET salary = 5000 WHERE id = 101;   (   )

10. Which command is used to select data from a Mysql database?

(a) DISPLAY * FROM SCHOOL   (   )

(b) SELECT * FROM SCHOOL   (   )

(c) UPDATE * FROM SCHOOL   (   )

(d) All of the above   (   )

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II. Indicate whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. PHP is a client-side scripting language primarily used for creating static Web pages.

   (T / F)

2. In PHP, a function must always return a value using the 'return' statement.

   (T / F)

3. In PHP, a class can contain both 'properties' and 'methods'.

   (T / F)

4. Functions are compiled only one time no matter how many times you call them.

   (T / F)

5. The 'mysqldump' command can be used to **create backups** of MySQL databases.

   (T / F)

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SECTION—II

(*Marks* : 10)

III. Answer the following questions in short :   2×5=10

1. (a) What are variables in PHP and how are they declared?

    OR

    (b) Write how to embed PHP in Web pages.

2. (a) How do we define and call a function in PHP?

    OR

    (b) What are encoding and escaping in PHP strings?

3. (a) Define array. How do we declare multi-dimensional array?

    OR

    (b) What is sorting? What are the sorting functions in PHP?

4. (a) How do you connect to a MySQL database in PHP? Provide an example.

    OR

    (b) How do you create a new database in MySQL using PHP? Give an example.

5. (a) What is SQL injection and how can you prevent it in PHP?

    OR

    (b) How do you create a backup of a MySQL database using the command line?

(PART : B—DESCRIPTIVE)

(Marks : 50)

IV. Answer the following questions :　　　　　　　　　　　　　10×5=50

1. (a) What is the lexical structure in PHP? Explain with examples.　　5

   (b) Briefly explain the history of PHP and its key features.　　5

   ### OR

   (c) Explain different data types in PHP with examples.　　5

   (d) Describe different flow control statements in PHP.　　5

2. (a) Explain function parameters and return values in PHP with examples.　　5

   (b) Explain different methods for manipulating and searching strings in PHP.　　5

   ### OR

   (c) Describe different types of function scopes in PHP with examples.　　5

   (d) Explain regular expressions in PHP with an example.　　5

3. (a) Differentiate between indexed arrays and associative arrays in PHP with examples.　　5

   (b) Describe how to store data in arrays and update elements in PHP with code examples.　　5

   ### OR

   (c) Describe object-oriented concepts in PHP. Briefly explain how we define a class and create object in PHP with suitable example.　　5

   (d) Describe a method of conversion between arrays of variables.　　5

4. (a) What are the different types of prompts MySQL provides? Explain how they can help in debugging queries. 6

(b) Explain the role of the -**h**, -**u** and -**p** options when connecting to a MySQL server. Provide examples how each option is used. 4

OR

(c) Write an SQL query to create a table named **pet** that stores details such as the pet's *name, owner, species, sex, birth date* and *death date*. Ensure that appropriate data types are used for each column. 6

(d) Write an SQL query using REGEXP to find pets in the **pet** table where : 4

(i) The name starts with 'b'

(ii) The name ends with 'fy'

(iii) The name contains the letter 'w'

(iv) The name has exactly five characters

5. (a) Write a PHP code to fetch and display name from users table into HTML table. 5

(b) How can you handle connection errors in PHP when connecting to MySQL? 5

OR

(c) Explain any five types of SQL queries that can be executed using PHP. 5

(d) Explain any five types of privileges that can be assigned to a MySQL user. 5

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