

University of Ruhuna- Faculty of Technology
Bachelor of Information & Communication Technology Honours Degree
Level I (Semester II) Examination, December 2023
Academic year 2021/2022

Course Unit: ICT1233 Server-Side Web Development (Written) Duration:2 hours

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- Answer all **Four (04)** questions.

1)

a)

- i) What is meant by server-side scripting?
- ii) Explain the different types of PHP comments and write down three important characteristics of comments.
- iii) The scope of a variable is the part of the script where the variable can be referenced/used. Briefly explain two (02) variable scopes in PHP with one (01) simple example each.

b)

- i) Write a PHP program to display the following output using arrays.

Hello Pat.
Hello Shan.
Hello Kasun.
R is for red.
A is for apple
G is for green.
B is for black.
W is for white.

- ii) According to Wikipedia Floyd's triangle is a right-angled triangular array of natural numbers. It is defined by filling the rows of the triangle with consecutive numbers, starting with a 1 in the top left corner: Write a PHP program to display the first 6 lines of a Floyd triangle by using loop control.

Sample output for n = 4 :

```
1
2 3
4 5 6
7 8 9 10
```

2)

a)

i) Briefly explain the terms “pass by value” and “pass by reference” with simple code examples.

ii) Consider that you are given the following data set consisting of four records.

{(Book ,120 , 150.00), (Pen ,20 , 20.00), (Pencil , 30 ,15.00), (Ruler , 45 , 25.00)}

Write a PHP code segment to store the above records in a multi-dimensional array and display the following table as output.

Product	Quantity	Unit Price
Book	120	150.00
Pen	20	20.00
Pencil	30	15.00
Ruler	45	25.00

b)

i) Briefly explain the usage of `include_once()` and `require_once()` with simple PHP code example each.

ii) Write a PHP code to perform the following tasks.

- I. Declare the variable `$Sentence` with the string value “Great things happen to those who don't stop believing, trying, learning, and being grateful”.
- II. Print the length of the string.
- III. Reverse the given string and then print it.
- IV. Remove the whitespaces of both sides of the given string and then print it.
- V. Find and print the number of occurrences of the letter “h”.
- VI. Print an array containing 3 size character parts of the given string.

3)

a)

- i) Explain the functionality of PHP_SELF variable used in the action field of a form.
- ii) Object-Oriented Programming is a programming paradigm that views a software system as a collection of interacting and interrelated objects. Define the terms 'classes' and 'objects' in PHP OOP.
- iii) List three (03) advantages of using object-oriented concepts in PHP.
- iv) Write a PHP function to find the factorial of a given number. Call the function to get the factorial of 10 and print the answer.

b)

- i) List three (03) PHP file open modes with their functionalities.
- ii) Write a PHP code to perform the following tasks. Assume that you have a file named 'Invitation.txt'.
 - I. Open the file 'Invitation.txt' in read/write mode.
 - II. Write the string value 'Invitation' to the file 'Invitation.txt'.
 - III. Set the file pointer to 0th position. Use rewind() function.
 - IV. Write the string value 'Heena Concert 2023' to the file 'Invitation.txt' on 0th position.
 - V. Read and display the content of the file 'Invitation.txt'.

4)

a)

- i) Briefly explain how the concept of 'Retargeting' uses cookies.
- ii) Write a PHP script to set a cookie named "Degree" with the value "Information Communication and Technology" and an expiration time of one hour.
- iii) Explain how we can destroy a cookie with an example.
- iv) List down three(03) limitations of cookies.

b)

i) Write a PHP code to perform the following tasks.

I. Start a new session.

II. Register two session variables as 'Name' and 'Address'. Store values as

Name = "John"

Address = "Melbourne, Australia"

III. Print the session data previously stored.

IV. Destroy session data.

ii) Explain three (03) main differences between PHP sessions and PHP cookies.

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