

QUANTUM UNIVERSITY

**Campus: - Mandawar, 22 Km Mile Stone, Roorkee - Dehradun Highway (NH-73)
ROORKEE- 247667 (Uttarakhand, INDIA)**

Tutorial-1

(ODD Semester 2025-2026)

Date:28-08-2025

Subject Name: PHP and MYSQL

Subject Code: CA43202

Program/Branch/Year: MCA/3RD SEM

Max Marks: 6

1) Loops and Star Pattern

[BL-2]

You are designing a dynamic pattern generator in PHP for a web-based art tool.

- a) Compare and contrast the use of for, while, and foreach loops in terms of flexibility, readability, and performance.
- b) Justify which loop you would choose for generating star Triangle patterns.
- c) Write a PHP script that constructs a hollow pyramid star pattern and make it reusable for different pyramid sizes.

2) Shopping cart system

[BL-2]

Imagine you are building a simple calculator for a shopping cart system.

- a) List different types of operators in PHP (arithmetic, assignment, comparison).
- b) Explain how these operators can be applied in price calculations, discounts, and value comparisons.
- c) Write a PHP code snippet that demonstrates these operators in action with meaningful outputs.

3) Break & Continue

[BL-2]

- a) Write a PHP program to print the first five prime numbers using a loop.
- b) Use continue to skip non-prime numbers.
- c) Use break to stop after five primes.
- d) Explain why break improves efficiency in this program.

Tutorial-2

(ODD Semester 2025-2026)

Date:09-09-2025

Subject Name: PHP and MYSQL

Subject Code: CA43202

Program/Branch/Year: MCA/3RD SEM

Max Marks: 6

- 1) Write a PHP program where one recursive function calls another recursive function to calculate the of Prime Number & Fibonacci numbers up to n. **[BL-3]**
- 2) Illustrate the differences between call by value and call by reference in PHP and provide good examples for both. **[BL-2]**
- 3) Write a recursive function that splits a string into all possible substrings of length ≥ 2 and stores them in an array. **[BL-3]**