



**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)  
Re-accredited with A++ Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Continuous Internal Assessment –I- February 2025**  
**Semester-II**

**Class: I PG**  
**Branch : Information Technology**

**Time: 2Hours**  
**Max. Marks: 60**

**23MITC10–Open Source Technologies**

Course Outcomes:

1. Have knowledge in advanced techniques necessary for the development of applications using PHP.
2. Develop programs connecting MySQL database with PHP.
3. Use Python for developing Open source applications.
4. Implement Python and MySQL database Connectivity.
5. Create database applications using Python and Mongo DB.

**Part A**

**6 x 1 =6**

**Choose the Correct Answer**

1. Which of the following is the correct way to declare a constant in PHP? CO1 K1
  - a) `define("PI", 3.14);`
  - b) `$PI = 3.14;`
  - c) `const PI = 3.14;`
  - d) Both a and c
2. Which PHP function is used to check if a file exists before opening it? CO1 K2
  - a) `file_exists()`
  - b) `is_file()`
  - c) `check_file()`
  - d) `exists()`
3. Which SQL clause is used to filter records returned by a SELECT statement? CO2 K1
  - a) WHERE
  - b) ORDER BY
  - c) HAVING
  - d) GROUP BY
4. Which of the following is NOT a MySQL aggregate function? CO2 K2
  - a) `SUM()`
  - b) `AVG()`

- c) JOIN()  
d) COUNT()
5. What will be the output of the following Python code? C03 K1  
 for i in range(1, 6, 2):  
 print(i, end=" ")  
 a) 1 2 3 4 5  
 b) 1 3 5  
 c) 1 4  
 d) Error
6. What will be the output of the following Python code? C03 K2  
 x = "5"  
 y = 3  
 print(x \* y)  
 a) 15  
 b) 555  
 c) Error  
 d) None

**Part B**

**3 x 6 = 18**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

7. a Explain the flow control functions in PHP with examples. (OR) C01 K2
- b. Demonstrate how arrays are used in PHP with at least three different operations. C01 K3
- 8.a Explain the different data types available in MySQL. (OR) C02 K2
- b. Write an SQL query to create a table named Students with columns ID, Name, Age, and Department and specify ID as the primary key. C02 K3
9. a Explain the different data types available in Python. (OR) C03 K2
- b Write a Python program to check whether a given number is positive or not. C03 K3

**Part C**

**3 x 12 = 36**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

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|-------|---|-----|----|
| 10.a. | Develop a PHP script that takes user input through a form and validates email and phone number using regular expressions. (OR)                                      | CO1 | K5 |
| b.    | Explain object-oriented programming in PHP with an example that includes class, constructor, and inheritance.<br>(Knowledge Level: K4 - Analyzing, K5 - Evaluating) | CO1 | K4 |
| 11.a. | Develop a PHP script to connect to a MySQL database, insert a record, (OR)  | CO2 | K5 |
| b.    | Explain the process of establishing a MySQL connection in PHP and demonstrate how to retrieve and display data from a MySQL database using PHP                      | CO2 | K5 |
| 12.a  | Write a Python program using loops and control statements to generate Fibonacci series up to n terms. (OR)  | C03 | K5 |
| b     | Explain different types of loops in Python with examples. Compare for and while loops in terms of their functionality and use cases.                                | CO3 | K4 |

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