GLS University

Faculty of Computer Applications & IT

TYiMSc-IT

Sem-V

Lab Exercise – 6 (Arrays)

Question-1: Introduction & Creating Arrays

1. Write a program to create an array of 5 integers and display all values.
2. Modify the program to accept array elements from user input and print them in reverse order.

Question- 2: Storing & Initializing Arrays

1. Write a program that:
    - Declares an array of 10 numbers.
    - Initializes it with values from 1 to 10.
    - Prints the sum and average of all elements.
2. Write a program to find the largest and smallest number from an array of 8 user-input values.

Question-3: Associative Arrays

1. Create an associative array to store the following student details:
    - Roll Number
    - Name
    - Course
    - Marks

    Display the values in a tabular format.
2. Extend the program to add 5 students and print the details of the student who scored the highest marks.

Question- 4: Multidimensional Arrays

1. Create a 2D array (3x3 matrix) and print it in matrix format.
2. Write a program to perform addition of two matrices using multidimensional arrays.
3. Create a 2D associative array to store the names and marks of students in 3 subjects and calculate the total marks for each student.

Question- 5: Array Related Functions

1. Demonstrate the use of the following functions with examples:
    - count() / sizeof()
    - array_merge()
    - array_push() / array_pop()
    - array_search()
    - sort() / rsort()
    - in_array()
2. Write a program that:
    - Stores a list of 10 city names in an array.
    - Sorts them alphabetically.
    - Searches whether a user-input city exists in the array or not.