**Experiment: 6**

PART B

(PART B: TO BE COMPLETED AND SUBMITTED BY STUDENTS)

Students must execute all the programs, write executed code in the workbook, and submit part B of experiment 6 on the student portal. The filename should be **PPS\_batch\_rollno\_experimentno. Example: PPS\_A1\_A001\_P6**

|  |  |
| --- | --- |
| **Roll No.:** | **Name:** |
| **Prog/Yr/Sem:** | **Batch:** |
| **Date of Experiment:** | **Date of Submission:** |

**Aim:** Programming using 1D Array & 2D array

**Tasks:**

|  |  |
| --- | --- |
| Sr. No. | Problem Statement |
| 1 | Write a program to multiply each element of an array by 5 and display the resultant array. |
| 2 | Write a program to count and display number of odd & even elements from an array (1D) separately. |
| 3 | Implement a program to find the intersection of two arrays |
| 4 | WAP to copy one array into another array in reverse order. |
| 5 | Create a program to exchange first and last element of the 1D array of size N. |
| 6 | Develop a program to perform sum of elements of matrix (2D array) of order MXN. |
| 7 | Develop a program to find sum of elements of lower triangular matrix of order MxN. |
| 8 | Implement a program to find the largest element in matrix of order 3X3. |
| 9 | Write a program to perform multiplication of two matrix of order mXn and pXq and display the resultant matrix. |

**Executed Code, Input and Output**

|  |  |
| --- | --- |
|  | Write a program to multiply each element of an array by 5 and display the resultant array. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Write a program to count and display number of odd & even elements from an array (1D) separately. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Implement a program to find the intersection of two arrays |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | WAP to copy one array into another array in reverse order. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Create a program to exchange first and last element of the 1D array of size N. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Develop a program to perform sum of elements of matrix (2D array) of order MXN. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Develop a program to find sum of elements of lower triangular matrix of order MxN. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Implement a program to find the largest element in matrix of order 3X3. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |
|  | Write a program to perform multiplication of two matrix of order mXn and pXq and display the resultant matrix. |
| **Executed Code: -**  // Paste the executed code here  **Input Output: -**  // Paste the input/output of executed code | |

**Observation and Learning: -**

* Write your observation and learning

**Additional Questions**

1. Write a program to find sum of odd & sum of even numbers from array separately
2. Write a program to find and display odd & even numbers from an array (1D) separately of size N.
3. WAP to copy one array into another array in reverse order.
4. Implement a program to reverse elements of 1D array and display it.
5. WAP to delete an element from an array.
6. Develop a program to copy one 1D array into another 1D array and display copied array.
7. WAP to find Sum of diagonal elements of MxN matrix.
8. WAP to find Sum of elements of upper triangular of MxN matrix.
9. WAP to find Matrix addition [of order mXn and pXq].