



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी  
**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI**  
**IT Workshop I, B.Tech 3rd Semester**

**Instructions**

1. Deadline to submit is 16th August 2023.

**Assignment 2**

1. Write a Java program that initializes an integer array with 5 elements and calculates the sum of all the elements. Display the sum in the console. (5)
2. Implement a Java program to find the frequency of each element in an array. Initialize the array with some elements and display the frequency of each unique element in the console. (5)
3. Develop a Java program that checks whether an array of integers is a palindrome or not. A palindrome array is one that reads the same forwards and backwards. Take the array as input from the user using the scanner class and display the result in the console. (5)
4. Develop a Java program using a.) if-else and b.) ternary operator that takes two integer inputs from the user and prints whether the first number is divisible by the second number without any remainder. Handle the case where the second number is zero. (5)
5. Write a Java program to do the followings: (5)
  - a) To take a series of numbers as input from keyboard and store in an array.
  - b) To reverse the elements of an array.Write separate methods for doing the operations and necessary inputs to the methods should be passed as parameter.
6. Write a Java program for the followings: (3+5+5)
  - a) To read a sentence entered from keyboard.
  - b) To find and display the longest word in the entered sentence.
  - c) To check if the entered sentence is a pangram. A pangram is a sentence that contains every letter of the alphabet at least once. Display "Pangram" or "Not Pangram" in the console.

**Notes:**

1. You should not import any additional classes/packages other than Scanner class.
2. Additional 2 marks for good programming practice