**Assessment of POC 7 & POC 8**

**Time – 1 Hr.**

Question 1- Write a program that creates two threads. One thread prints odd numbers from 1 to 10, and the other thread prints even numbers from 2 to 10. Ensure that the threads execute concurrently and print the numbers in the correct order.

Question 2- Implement a program that calculates the sum of elements in an array using multiple threads. Divide the array into smaller segments and assign each thread to compute the sum of a segment. Sum up the partial results from each thread to obtain the final sum.

Question 3- Create a program to calculate the factorial of a given number using multithreading. Divide the calculation into multiple threads, each responsible for calculating a portion of the factorial.

Question 4- Create a program that simulates a race between multiple cars. Use multithreading to update the position of each car simultaneously.

Question 5- Write a program that prints different patterns (such as stars, numbers, or alphabets) using multiple threads. Each thread should be responsible for printing a specific pattern or a portion of the pattern. Make sure the patterns are printed in the correct order.