VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Parallel and Distributed Computing-CSE4001L

Lab Slots: L9+L10 **Date: 7th August**

Instructions:

1. **All the program has to be in a single file.**
2. **Name of the file should be the regno_assess1**
3. **The file should contain the question, program and the output snapshot.**

Assessment -1

S. No.	Program Name
1	Hello World Program
2	Program to find number of threads running currently
3	Program to find maximum number of threads
4	Program to find the thread id
5	Program to find the number of processor core in system
6	Program to set number of thread to be executed
7	Program to test is_ parallel function
8	Program to parallelize a simple for loop
9	Write an OpenMP program to find the number of prime numbers in a list of numbers generated randomly. Output the prime number and the thread id that is calculating it. Print the number of prime numbers in the main thread
10	Write an OpenMP program to compute the sum of all the elements in a one dimensional array A using reduction. Create another program that

	does the same, without using the REDUCE clause. Compare the two versions.[use dynamic memory allocation]
11	Write a program to find sum of squares of first hundred natural numbers see that half computation is done by one core and another half is computed by another core. Finally results of computations are added and the final result is to be printed in master thread.
12	Write a C program and parallelize it using OpenMP Sections construct for the following scenario a. Biggest of n numbers b. Smallest of n numbers c. Factorial of n d. Fibonocci sequence. and compute its execution time. Compare the execution time for sequential and parallel for different number of elements and tabulate the results for five entries.