**Motilal Nehru National Institute of Technology Allahabad, Prayagraj**

**Computer Science and Engineering Department**

**Algorithm Lab**

**Assignment-1**

**Q-1:** Write a C program to analyze the time complexity of insertion sort algorithm. Also plot their graph for all cases.

**Q-2:** Write a C program to analyze the time complexity of selection sort algorithm. Also plot their graph for all cases.

**Q-3:** Write a C program to analyze the time complexity of bubble sort algorithm. Also plot their graph for all cases.

**Note:** Randomly generate the input data of size 1000, 10000, 100000 and more for each algorithm and then plot the graph through Linux GNUPLOT and analyze the complexity in best case, worst case and average case