DATA STRUCTURES AND ALGORITHMS

CYCLE SHEET-3

1.Write a program to implement bubble sort

2. **Write a program to implement selection sort**

3. Write a program to implement insertion sort

4. Write a program to implement merge sort

5. Write a program to implement quick sort

6. Write a program to implement linear search

7. Write a program to implement binary search

8. Write a program to implement binary tree traversals

9. Write a program to implement binary search tree

Challenging Question:

Assume in the Regional Passport Office, a multitude of applicants arrive each day for passport renewal. A list is maintained in the database to store the renewed passports arranged in the increased order of passport ID. The list already would contain the records renewed till the previous day. Apply Insertion sort technique to place the current day's records in the list.

Later the office personnel wish to sort the records based on the date of renewal so as to know the count of renewals done each day. Taking into consideration the fact that each record has several fields (around 25 fields), follow Selection sort logic to implement the same.