**Greedy Algorithms**

1. Write a program for Huffman Coding using priority queues implemented as min-heap.

Suppose that we have an alphabet of n symbols and a long message consisting of symbols from this alphabet. We wish to encode the message as a long bit string ( a bit is either 0 or 1 ) by assigning a bit string code to each symbol of the alphabet and concatenating individual codes of the symbols making up the message to produce an encoding of the message. Create a message is a page long how much compression is obtained by doing Huffman coding?

2. Write a program to implement Kruskal's algorithms for finding the minimum spanning

tree of a given edge-weighted graph .

3. Write a program to implement Prim's algorithm using (a) an array (b) a heap for the

priority queue. Refer to CLRS and understand how it can be implemented.

4. Write a program to implement Dijkastra algorithm.