ASSIGEMENT NO 2

1. What is spanning tree? Write Kruskals algorithm with an

example to find minimal spanning tree for any graph.

2. Consider fractional Knapsack instance n=3

(w1,w2,w3)=(2,3.4) and (p1,p2,p3)=(1,2,5) and m=5. Find the optimal solution

through greedy approach.

3.Given 7 characters and frequency. Character: x1, x2, x3, x4, x5, x6, x7 Frequency: 20, 5, 8, 30, 12, 15, 10 Find out the sum of the frequency count using Huffman coding.

4.time complexity. Find the best solution for the fractional knapsack problem by making use of the greedy approach

. Consider- n = 5

w = 60 kg (w1, w2, w3, w4, w5) = (5, 10, 15, 22, 25) (b1, b2, b3, b4, b5) = (30, 40, 45, 77, 90)

5. With the help of example explain shortest path problem.