**Sorting Lab 2 Practical Optimise subsequences**

**Document Id 19**

**Questions**

1. Approximately how many compares will a Quick Sort make when sorting an array of all equal values?
2. Why would you prefer Shell sort over Insertion sort

**Practical Optimise subsequence**

We have an sequence of integers size N

We define an ordered subsequence K of the sequence as a 3 tuple

ordered sub sequence K = {S[a], S[b], S[c] } s. t ordering O = { a < b < c }

Say sequence S = {2, -4, 5, 3, 6, 1, -6}

K1= {-4, 3,1} then O1 = {1,3,,5}

We define the value of ordered sub sequence K as S[a]+ S[b+]+ S[c]

Value of K1 = -4+3+1 =0

Compute the ordered subsequence with the max value

For S clearly the answer would be 5+3+6 =14