

CIIT 2020 Examination at BSTU

Remembering my lecture, decode the following chromosome
(5,5,3,1,2,4,9,8,7)
to the route of TSP of 10 cities starting with A! Explain also why.

In Sorting Network Problem of 8 alphabets, sorting result of a chromosome is C A H E G D B F. Estimate the fitness with the algorithm I gave you in my lecture! Explain also why.

In IPD, Player B has the following 64-bit binary chromosome
111101011010111000101100010100 1100101001001101010100111000101100.
Then the final action of B?

A: 110101101110

B: 11101001100?

Explain also why.

Using Fitness sharing algorithm with $\sigma = 3$, calculate shared fitness of dog-A, assuming dogs start (500,500) and one sausage is located at (800,800). So the original fitness is $600 - \{\text{Manhattan-distance between the final location and nearest sausage}\}$. Explain also why.

