

Name ()

1. Create an example of child from two parents 11001100 and 11100111 by (i) one point crossover and (ii) uniform crossover.
2. Assuming fitness of four chromosomes are 0.8, 0.4, 0.2, 0.1, what should be the probability of the 4th chromosome (whose fitness is 0.1) will be chosen?
3. To solve Sorting Network Problem with 8 items, you have a chromosome (3 7 2 4 8 5 6 1). Then sort 8 integers 2 3 4 8 5 7 1 6 by this chromosome.
4. In Iterated Prisoner's Dilemma (IPD), assuming your chromosome is
(1111111111111111111100000000000000000000111100001111000011110000)
and history of the game was 0-1-1-0-1-1. (1) What should be your next action? And why? (2) Then the oponent's next two action was 1 and 0, what is your best next twp actions and why?
5. Try to propose your very original problem in which you can apply GA (evolving chromosomes). (Write it behind this paper as presise as possible.)