Indian Institute of Information Technology, Nagpur, India Department of Computer Science & Engineering Session 2021-22

(Jan to May 2022)

Lab Assignment

Course Name: Artificial Intelligence

Course Coordinator: Dr. Nishat Afshan Ansari

Problem Statement:

Part a)

Implement 4-queens problem using stochastic hill climbing/Gradient Descent algorithm. Use evaluation function as number of pair of queens attacking each other. Run your program 20 times and each time note the value of local minimum returned by your program. Take the snapshot of at least one run in which you get a global minimum. Plot a graph showing how many times you get these two values.

Part b)

Generalize your program for N-queens.