



ACADEMY OF TECHNOLOGY

Lab Assignment (Day 12)

Paper name: Design and Analysis of Algorithms Lab

Code: PCC-CS494

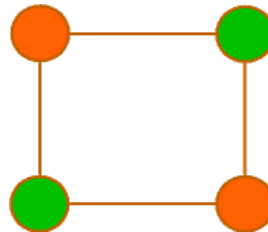
Discipline: CSE

Semester: 4th

Time: 2 Hours

Date: July 8, 2021

1. (a) Write a C or C++ program to implement $n - \text{Queen}$ problem using backtracking algorithm.
(b) Test your code for $n = 1, 2, 3, 4$ and 8 . Print number of solutions and all possible solutions. If there is no solution for some n , then print a message.
2. (a) Write a C or C++ program to implement $m - \text{Coloring}$ using backtracking algorithm.
(b) Test your code for $m = 1, m = 2$ and $m = 3$ for the following graph (one solution has been shown for $m = 2$). Print all possible solution.



- (c) Test your code for $m = 2$ and $m = 3$ for the following graph (one solution has been shown for $m = 3$). Print all possible solution.

