

# Programming Assignment: Algorithmic Game Theory

Palash Dey  
Indian Institute of Technology, Kharagpur

Due date: September 5, 2021 11:59 PM

## Input:

A finite n-player strategic form game in GAMBIT format

## Output:

- ▷ All strongly dominant strategies
- ▷ All weakly dominant strategies
- ▷ All very weakly dominant strategies
- ▷ Strongly dominant strategy equilibrium, if one exists
- ▷ Weakly dominant strategy equilibrium, if one exists
- ▷ Very Weakly dominant strategy equilibrium, if one exists
- ▷ All pure strategy Nash Equilibria, if they exist

## Input Format:

You are required to use the input format of GAMBIT for your assignment. Such input formats can be generated using GAMUT software. Use the following link to download GAMUT:

<http://www.gambit-project.org>

Please read the documentation of GAMUT carefully.

## Programming Environment:

The program must be in C or C++ or Java. No other language is allowed.

## Assessment Criteria:

The following will be the percentage weightage for different aspects of the assignment:

- ▷ Use of intelligent algorithms, quality of code, documentation : 25
- ▷ Use of innovative data structures, scalability of the program : 25
- ▷ Correctness : 25
- ▷ Completeness: 25

**Due Date:**

August 29.2021, 23 : 59 : 59 IST

**Submission:**

CSE Moodle