1st Semester 2015-16

CS F214

Logic in Computer Science

Assignment 1

- **Due Date &Time: 10.45pm on Tue. 29 Sep.**
- **Mode: Programming, Take Home, Team (two or three students per team) :**
  - **Note that you may choose your partner(s) and your problem (A, B, or C) from the set given.**
  - **Deadline for Team and Problem choice: 10.45pm on Sat. 19 Sep.** (*Upload a text file on **Nalanda** with problem choice (A, B, or C) and the list of team members <name, ID>.*)
- **Weight: 15 marks**
- **Fairness Policy:**
  - ***Read the fairness policy given in the course handout.***
  - **You are expected to work within your team. Any kind of mal-practice will be dealt with strictly.**
- **Deliverables:**
  1. **A Prolog program as described in your problem statement (see below)**
  2. **A brief *readme* containing the description of the query format (to run your program) and the meaning of the (top-level) predicates defined in your program.**
  3. **Sample inputs that you have tested.**
- **Submission:**
  - **Prepare a zip file (named using the IDs of the team members) containing the program file, *readme* file, and test input file(s).**
  - **Upload the zip file on Nalanda.**
- **Programming Environment:**

- **Use SWI-Prolog for programming. The environment is downloadable from the SWI-Prolog site.**
- **You may install and use this on your desktop/laptop or use one of the CSIS labs (where it is installed).**

- **Evaluation:**
  - The assignment will be evaluated for correctness, design elegance / style, and efficiency of your program.
  - ***A viva/interaction may be used to assess the contribution and seek clarifications***.
- **Problem Statements** (see documents **A1PA, A1PB, A1PC**).
- **General Guidelines**:
  - *Do not spend time on coding I/O or parsing the input.*
  - *Design a suitable representation using* ***native syntax and data types of Prolog (terms and lists among others)*** *for input arguments and results of your problem.*
  - *Include at least five distinct (i.e. without significant overlap) test cases that you have tested in your final submission. The instructor(s) will of course run additional test cases.*