

# Artificial Intelligence Programming

## Instructions

1. Attempt all the questions. Show all your workings where applicable.
2. Work in GROUPS of 2 students (Max). Aim is to encourage discussion and brainstorming.
3. Submit a pdf version of your work before 12/02/2024.
4. Upload your assignment on the virtual campus. One member can upload on behalf of the group.

Represent the following facts in the language of propositional logic: (5 Marks)

- i). Alison likes cakes or Alison eats cakes
- ii). Alison likes cakes and Alison eats cakes
- iii). Alison doesn't eat cakes
- iv). If Alison likes cakes then Alison eats cakes
- v). If Alison likes cakes then Alison eats cakes, and vice versa

Represent the following facts in the language of propositional logic: (10 Marks)

- i). Alison likes Richard or likes chocolate
- ii). Alison likes Richard and chocolate
- iii). If Richard is a friend of Alison then Alison likes Richard
- iv). Alison eats everything that she likes
- v). There exists some bird that doesn't fly
- vi). Every person has something that they love
- vii). There is some table that doesn't have 4 legs.
- viii). All elephants are grey
- ix). All Kiwis support either Warriors or Crusaders
- x). There is something small and slimy on the table
- xi). There is no asparagus which is tasty.