CS5011 P3 Questions and Clarifications

1) What is the tie breaking strategy to be used in P3?

The tie breaking strategy is the following: first we prioritise the lower d value, then the lower angle value. Not in any clockwise or anticlockwise direction. Please see the numbers indicating priorities in Figure 3.

2) How do we ensure the same tie-breaking strategy in BFS/DFS?

The exploration should break the ties (children of a node in uninformed searches) on the basis of the tie-breaking strategy. It is somewhat up to you to consider how the algorithms, particularly DFS, can do that. You should consider how the insertion should be made such that ties are broken correctly.

3) Are there restrictions on N(size of the planet)?
There is no restriction on what N is except it should be >0, as otherwise it does not make much sense. As usual we assume inputs are correct, no need to check for those, unless you want to.

4) Do the coordinates themselves reflect the state of the flight?
Yes, we only use coordinates here, so the final path is a sequence of coordinates.

5) Evaluation
For the evaluation, we are expecting an experiment showing performance against at least the given problems in the appendix. Please see the spec in terms of what needs to be evaluated:

There are two main criteria for evaluating search algorithms: the quality of the solution (e.g., the length/number of steps of the flight route), and efficiency represented here by the number of search states visited by the algorithm.

As usual this is what is expected as basic evaluation, you can always complement it with additional data/information etc..

6) There was a mistake in test 09, which tested for AStar but it was intended for SMAStar. This should now be correct.