University of Lincoln School of Computer Science Criterion Reference Grid 2022-2023

## CMP2020-22-23 Artificial Intelligence Assessment Item 2



| Learning Outcome                | Criterion               | Pass                                 | 2:2                                  | 2:1                                     | 1   |
|---------------------------------|-------------------------|--------------------------------------|--------------------------------------|---|---|
| LO1 Explain the the-            | Produce a software      | The pacman agent can successfully    | The pacman agent can successfully    | The pacman and ghost agents act         | The pacman and ghost agents act effi-         |
| oretical capabilities           | solution that au-       | navigate the environment and eat the | navigate the environment and eat     | efficiently and effectively. The imple- | ciently and effectively. The implementation   |
| of Artificial Intelli-          | tonomously controls a   | food.                                | the food and deposit the food. An    | mentation demonstrates a reasonable     | demonstrates a good understanding of an Al    |
| gence                           | team of agents with     |                                      | improvement has been made to how     | understanding of an Al approach.        | approach. The approach is well aligned to     |
|                                 | the aim of winning the  | The description of the implemented   | ghost agents are controlled.         |   | the problem and shows ingenuity.              |
|                                 | Pac-Man Capture the     | solution is vague and/or partially   |                                      | The solution is applicable to various   |   |
|                                 | Flag game.              | incorrect.                           | The description of the implemented   | sizes of environments, any number of    | The solution is applicable to various         |
|                                 | (70%)                   |                                      | solution is adequate.                | ghosts and any number of pellets.       | sizes of environments, any number of ghosts   |
|                                 |                         |                                      |                                      |   | and any number of pellets.                    |
|                                 |                         |                                      |                                      | The code is appropriately writ-         |   |
|                                 |                         |                                      |                                      | ten and commented.                      | The code is clearly written and well          |
|                                 |                         |                                      |                                      |   | commented.                                    |
|                                 |                         |                                      |                                      | The description of the implemented      |   |
|                                 |                         |                                      |                                      | solution is clear.                      | The solution is very well described.          |
|                                 | Provide a justification | A vague justification has been pro-  | The report presents an justification | The report presents an appropriately    | The report is well written and presents       |
|                                 | for your chosen ap-     | vided.                               | of the chosen approach.              | written justification of the chosen     | a convincing justification of the chosen      |
|                                 | proach.                 |                                      |                                      | approach. Alternative methods and       | approach. Alternative methods and the         |
|                                 | (30%)                   | References have been used where      | Alternative methods, the limita-     | the reasons they were not chosen are    | reasons they were not chosen are very clearly |
|                                 |                         | appropriate.                         | tions of the chosen approach and     | clearly described.                      | described.                                    |
|                                 |                         |                                      | the technical challenges faced are   |   |   |
|                                 |                         |                                      | mentioned.                           | The limitations of the chosen           | The limitations of the chosen approach        |
|                                 |                         |                                      |                                      | approach and the technical challenges   | are very clearly described.                   |
|                                 |                         |                                      | References have been used where      | faced are mentioned.                    |   |
|                                 |                         |                                      | appropriate.                         |   | The technical challenges faced and how they   |
|                                 |                         |                                      |                                      | References have been used where         | were overcome are mentioned.                  |
|                                 |                         |                                      |                                      | appropriate.                            |   |
|                                 |                         |                                      |                                      |   | References have been used where appropriate.  |
| Weighting is 60% of the module. |                         |                                      |                                      |   |   |